REVIEW.

ART. XII.—*The Transactions of the American Medical Association, instituted* 1847; Vol. iv.; 8vo. pp. 677. Philadelphia, 1851. With four coloured plates and a map.

THE appearance of a fourth volume of the *Transactions of the American Medical Association*, naturally suggests the inquiry: What influence has the Association produced upon the condition of the medical profession in the United States? Have any important reforms been effected through its agency? Has it succeeded in practically elevating the standard of medical education in this country? In short, have the beneficial results anticipated from its organization, by its original advocates, been, to any considerable extent, realized?

It was predicted by a few, from the first period of its organization, that the National Association would prove a nullity, its influence upon the profession being ineffective for either good or evil; many exhibited towards it a perfect apathy, whilst others, enlisting themselves on the side of such medical teachers as look more to the size than the material of their classes, and care less for the qualification of the pupils sent forth by them to practice than for their own emoluments, set themselves in open opposition, and exerted every means to thwart the measures adopted by it, and to render inoperative its recommendations.

But, notwithstanding these sinister prophecies, the lukewarmness of one part of the medical profession, and the opposition of another, the National Association pursues a firm, dignified and onward course, discussing calmly the evils under which the medical profession of the United States has so long laboured, investigating their causes, and suggesting the means for their removal; and already its influence is beginning to be felt by the great body of the medical profession throughout the length and breadth of our land.

It is true the Association has not as yet effected, to its full extent, the reform at which it aims. It has not succeeded in elevating our profession to that high rank in public estimation to which it has so just a claim, as well from the important benefits it confers upon society at large, as from the talents, the scientific acquirements, and moral dignity demanded of its members, for the faithful discharge of their professional duties. The ranks of our profession, it must be confessed, are still disgraced by the intrusion into them of ignorant and incompetent persons, owing to the facility with which the degree of Doctor of Medicine may be obtained by any one, after a few months' attendance upon an incomplete and superficial course of instruction; the evidence of character and professional attainments, which admission to the doctorate should always afford, being thus virtually nullified.

But although the National Medical Association has not yet accomplished, within the short period it has existed, all those reforms in the medical profession its projectors anticipated from its organization; reforms, for the full accomplishment of which much time, patience, deliberate council and firm but prudent action will be still required; it has nevertheless exercised a decidedly beneficial influence, and is acquiring yearly the increased confidence and fealty of those whose interests it professes to represent.

By enforcing the necessity of demanding satisfactory evidence of the possession of proper qualifications, on the part of those who would enter upon the study of medicine, and of a thorough professional education previously to commencing the duties of a practitioner; by promulgating a code of ethics calculated to preserve harmony and good faith in the intercourse of the members of the medical profession with each other, to protect the rights of the patient as well as of the physician, and to elevate his moral standing with the public at large; by promoting the formation of County and State Medical Societies, thus enlisting the individual members of the profession in the work of reform, and enabling all to realize the important fact that the interests of the individual can only be secured by securing the interests of the profession as a body; and, finally, by encouraging, as far as their limited means and the scope of their influence will permit, the formation of a national medical literature, the American Medical Association has already accomplished much; it has certainly laid the foundation for the success of those measures that are necessary for the completion of its work.

In the proceedings before us, those of its fourth session, the Association has exhibited the same firmness and unanimity in maintaining the broad principles of reform originally laid down by it; the same hopefulness in their final triumph over the selfish interests and mistaken views both as to the wants of the country and also the number of our youth who would be found willing and competent to devote themselves with untiring zeal to the faithful study of medicine, upon which much of the opposition to these reforms is at present based.

The following resolutions appended to the Report on Medical Education, and concurred in by the Association, evince no change of opinion on these important subjects, and show how ill-founded was the prediction of those who desired that the Association should recede from their former decision in regard to them.

"*Resolved*, That the abuses which exist in the modes of medical education pursued in this country, demand the serious consideration of the profession.

"*Resolved*, That free discussion in relation to their causes, is an important means of effecting their removal.

"*Resolved*, That, in the opinion of this Association, no effort to remove these abuses can succeed, that is not based upon a reform in the public sentiment both of the profession and of the community.

"*Resolved*, That, the reform, so far as the profession is concerned, is to be effected mainly, through its organization, and that it is, therefore, incumbent upon every physician to do all that he can to give them character and efficiency.

"*Resolved*, That this Association have confidence in all proper efforts which have for their object a reform in the sentiments and practice of the community in relation to medicine and the medical profession.

"*Resolved*, That the recommendations of the Association at its former meeting, in regard to education, both preliminary and medical, be reaffirmed, and that both the schools and private preceptors be still urged so to do their duty as to secure to the community a well-educated profession.

"*Resolved*, That, in the work of medical reform, while all precipitate movements should be avoided, we should aim at a steady advance, from year to year, until a thorough system of education be established throughout our country."

Among other proceedings of the Association, a very important and certainly judicious alteration of the Constitution was adopted, by which most of the *Standing* committees were abolished, and in their place *Special* committees created, to report on particular subjects—to eight of these committees being submitted the investigation of the epidemic diseases of specified sections of the United States. The chairman only of these committees is nominated by the Association. He to "select, at his earliest convenience, two members of the Association to complete the committee."

This new arrangement of the Committees is a very decided improvement upon that previously existing; we fear, however, that the Association have erred in appointing too large a number of them: nevertheless the subjects selected for discussion are replete with interest, and, provided the members of the several committees perform their duties with any degree of faithfulness, their reports cannot fail to add to the common stock of medical knowledge, and materially enhance the character and influence of the national Association.

The reports of the former Standing Committees are all, we admit, interesting; many of them are, indeed, particularly valuable. But while some of them were necessarily a mere recapitulation of subjects that had already been in possession of the profession, either in the journals where they originally appeared, or in the excellent summaries appended to nearly all our medical periodicals, others again, from the want of a due circumscription of the subjects falling within their scope, were made up, to a certain extent, of a mere repetition of the materials embraced in the reports from other committees, presented at the same session. It is, perhaps, to be regretted, that among the subjects referred to special committees, at the last session of the Association, that of medical education was forgotten. The reports that have been already made by the former Standing Committees on this subject, valuable as they are, have by no means exhausted every subordinate question involved in the general topic; several of these have been barely hinted at, a more thorough discussion of which would no doubt lead to greater unanimity of opinion and concert of action among those to whom, in this country, the education of candidates for the doctorate is entrusted. Until this important result is attained, it is, at least, important that the subject of medical education should be kept constantly before the profession, and its claims upon their serious attention, as the only basis upon which any permanently beneficial reform in the character and standing of the American Medical Profession can be secured, repeatedly urged.

Besides the special committees just referred to, the Association, "as an additional means of securing valuable contributions," have created a general committee, whose business shall be, in the intervals of the sessions, "to receive original volunteer papers upon any subject which their authors may choose, to decide upon the merits of these papers, and to present to the Association at its next session, such of them as they may deem worthy of receiving this distinction." "A prize of fifty dollars, or a gold medal of that value, to be awarded to each of the five papers presented to the Association, or any smaller number of them, which the committee may consider most meritorious, and the Association may resolve to publish."

This plan, it is believed, is calculated to work well. If it shall elicit, annually, a single contribution of equal value with that of the prize essay appended to the present volume of "Transactions," this general committee will become, certainly, a most important means of enlarging the sphere of usefulness of the Association.

The greater portion of the volume before us, as of the preceding ones, is occupied by the reports of the Standing Committees.

The first of these, that of the *Committee on Medical Sciences*, is drawn up by Dr. Dowler, of New Orleans. This report, although written in the peculiar and, as we conceive, vicious style of its author—abounding in new coined words, and novel phrases, alien to a pure English diction—contains, nevertheless, a fair exposition of the more important facts in anatomy and physiology, medical chemistry, pharmacy, therapeutics, and pathology contributed by American physicians, during the preceding year, as well as the general inferences

in one or other of these departments of medical science, deducible from observations recorded by them within the period alluded to.

The great object of the reporter has been, as he states, to bring together "such facts as possess a scientific bearing or suggestive import," and to "connect them by threads of thought," although, from the very restricted scope of the reporter, who is confined to American authorities, and to the limits of the year gone by, "the warp and the woof" at his disposal "will seldom be sufficient to produce anything resembling a uniform and extended fabric."

The report of Dr. Dowler will be read with interest—the author has succeeded in throwing a form of originality over materials that had already been in possession, of the reading portion at least, of the profession.

We quote the following remarks on numerical medicine with which the report closes. The importance of medical statistics is too much overlooked in all the departments of our science. Some affect even to doubt the accuracy of the data determined by the numerical method; these will usually be found to be closet speculators, whose time is spent in the interpretation of facts in accordance with a preconceived theory; but who often, however, occupy a situation which gives to their wildest speculations a certain degree of currency.

"It is deemed," Dr. D. remarks, "not inappropriate, on this occasion, to offer a few suggestions upon the importance of numerical medicine, since it has an extensive bearing upon the progress of general pathology, morbid anatomy, surgery, therapeutics, hygiene, and the science of population. Instead of copying in whole or in part for republication, the able contributions made on this subject, during the year, it is hoped that a brief allusion to the method itself will not be unacceptable.

"What is numerical medicine but a rigid application of the method of observation and experiment, upon a large and efficient scale, in order to obtain deductions of the greatest possible certainty from identical or similar groups of naturally joined phenomena, by means of analytic averages and comparisons? Progressive and practical in its character, it promises no royal road to knowledge, no exemption from labour, no claims of infallibility; yet, faithfully applied, it contains in itself the element of self-correction, when errors, for example, have crept into its calculations. The numerical, in common with every other method, labours under this disadvantage, namely, that it does not infallibly guide us in diagnosing, classifying, and interpreting facts. Hence, if all the pertinent facts do not enter into the calculation—if facts not truly relating to the subject of inquiry be admitted—if facts having a different import be reckoned, or if such facts only be selected as favour the preconceived theories of the observer, then, of course, the comparisons, averages, and deductions cannot be true, while, at the same time, they simulate truth so completely that error is not easily detected.

"Numerical medicine is, from the nature of its method, cumulative. One of its first advantages frequently consists in giving a starting-point, rendering an anticipating generalization or law, more or less probable, in advance of *exact results*; this probability is constantly increased, constantly approximates certainty by multiplying the observations, and by separating the facts which are non-essential, accidental, and contingent, from such as truly represent the doctrine, properly deducible from a general family or group of phenomena; implying a constant use of both the analytic and synthetic modes of ratiocination. In medical researches, variations, discrepancies, and errors may be often corrected, always lessened, by the multiplication of careful observations.

"It has been urged, as an objection to numerical medicine, that it is inapplicable to the human body on account of the variable and complex character of its phenomena; but this very character affords the most valid reason in favour of this method of investigation. Do those who oppose this method expect to find more instruction in a single fact than in whole battalions? He who opposes numerical reasoning, and offers his own experience as proof, is really only confirming it in both principle and practice; for his deductions differ only from

numerism (?) in being based on fewer facts—a more limited observation! Some mistake numerism, in supposing that it does not regard the exceptions. If a certain exceptional set of causes require a treatment different from the majority, it is not to be treated as the majority, having been identified as a different process, only to be elucidated by numerical evidence. One therapeutic method cures fifty, and another seventy-five, in every hundred cases; then, of these two methods, the latter is numerically found to be preferable, though it may not be the best possible; for, by not following either method, or by adopting a different and better one, and by properly classifying cases not suitable for either of these, the proportion cured may possibly be greatly augmented, and the more so as the practitioner's diagnostic and therapeutic discrimination approaches perfection. Here, synthesis and analysis, observation and ratiocination, go hand in hand; indeed, they are never antagonistics, being conjoined in naming, counting, describing, arranging, and appreciating facts. It is the numerical history of operative surgery, of the Cæsarean section, of lithotomy, of amputation (immediate or secondary), not to name other examples, which, in many cases, determines the conduct of the surgeon and the fate of the patient. 'Statistical results,' observes M. Malgaigne, 'have for a long time been considered as among the most solid foundations of solid practice.' If numerical results be as yet unsatisfactory, if but few probabilities and still fewer truths have been eliminated, and if some errors have been propagated in the name of numerism, the fault is not in the method, but in its misapplication."

The report next in order is that of the *Committee on Practical Medicine.* This is a very elaborate and carefully drawn up paper. The subjects assigned to this committee are, the more important improvements effected in this country in the management of individual diseases, and the history of the epidemics of the preceding twelve months. Dr. Austin Flint, of Buffalo, N. Y., the author of the report, very pertinently remarks, in reference to the first branch of subject to which the labours of the committee are directed:—

"In the endeavour to form just conclusions respecting the merits of new views of the treatment of diseases, it is obvious that considerable difficulty may be experienced on the part of the committee, arising from the fact that a just estimate of accessions to therapeutical knowledge, involves, not alone the impressions they may produce as abstract propositions, but an inquiry into the number and validity of the facts, developed by observation, upon which they rest, as well as the correctness of the inductions by which they have been reached. The precise amount of force appertaining to the latter may not be readily appreciated. Various circumstances may stand in the way of yielding, promptly, either assent or denial to novel conclusions submitted for adoption, and prudence often dictates a suspension of judgment until more proof accumulates, or until the testimony of others has been corroborated by personal experience.

"In view of these considerations, the inquiry arises, in how rigorous a sense shall the phrase, 'important improvements' be taken, as expressing the qualification entitling therapeutical propositions to enter into this report? Shall the committee recognize those propositions only which they fully believe to embody important improvements, or shall a more liberal construction be followed, allowing a wider scope, so as to embrace whatever, in the estimation of the committee, may present claims sufficient to merit the attention of the Association? The interests of medical science, justice to those desirous of contributing to its progress, and a due distrust of judgment on the part of the committee, seem to point to the latter course as the most proper and useful, and it will, therefore, be pursued. Agreeably to this plan, those measures proposed for the better treatment of diseases will be noticed, which, from their origin, intrinsic character, or the evidence adduced in their behalf, the committee shall deem to possess such importance that their value should be carefully examined and tested. This course, it will be perceived, is removed on the one hand, from that extreme of latitude in the constructive sense of the phrase referred to, which would rank in the class of improvements everything new, merely on account of its novelty,

as well as, on the other hand, from a rigorous adherence to phraseology which would exclude anything, however promising, the precise position of which, as an improvement, remained to be determined.

"It would be unfair to measure the actual improvement effected within a brief space of time, by the number and character of the prominent developments that may have transpired during that period. Important changes for the better may be going on by means of the greater extension and wider application of views already promulgated, without the acquisition of even a single novelty. If, therefore, a retrospect of the past year should not disclose instances of presumedly important improvements so numerous and notable as might be desired, an inference should not be drawn unfavourable to the progressive character of American practice. Important improvements in practical medicine may consist in the introduction of new measures relating to the treatment of diseases, and in an increase in the extent and efficiency of the application of measures which are not new. Carrying this analysis somewhat further, it is apparent that improvements may differ much in kind, aside from intrinsic peculiarities belonging to different measures respectively. They may embrace the introduction of new remedies, or the discovery of new remedial applications of some remedies already in use. They may involve new principles of treatment, or new modifications of principles already received. They may comprehend facts and testimony tending, on the one hand, to confirm the value of therapeutical measures whose claims are not fully established, or, on the other hand, to define more correctly the proper position of measures that have been over-estimated. It is not to be overlooked, that improvements in the management of individual diseases may not be less important which consist in the abandonment or limitations of the use of remedies, the employment of which has been injudicious or excessive, and in relinquishing principles proved to be unsound and unsafe. In other words, the progress of practical medicine may be as distinctly evidenced in the lessened interference of medical art, as by an increased number and enlarged application of curative agencies."

In accordance with this very liberal but not altogether overstrained definition of the term "important improvements," Dr. Flint presents a very interesting and instructive digest of the experience and observations recorded by American physicians during the period over which the report extends.

The most important diseases to which the therapeutical observations embraced in the present report have reference, are dysentery, in its epidemic and sporadic forms; croup; pulmonary tuberculosis; tetanus; and typhoid, intermittent, remittent, and congestive fevers.

After adducing the observations in regard to the treatment of dysentery, derived from the several papers contained in the medical journals of the preceding year, Dr. F. offers the following general summary.

"Considering the great diversities of character which an epidemic disease is apt to assume in different sections of country and seasons—diversities from which dysentery is certainly not more exempt than other epidemics—the practical views of a pretty large number of observers, which are presented in the foregoing collection, exhibit, in some important features, a uniformity which is worthy of note. It is to be considered, moreover, in this view of the subject, that the different observers, by whom these practical views are contributed, are not only remotely situated with respect to each other, but there is no reason to suppose that the several communications had any connection with each other by way of suggestion or otherwise.

"In so far as the facts and opinions embraced in these communications are to be considered as supplying data for an induction, the several conclusions may be summed up as follows:—

"*a.* In the management of epidemic dysentery, as it has prevailed at the places and periods referred to in the papers that have been contributed on the subject during the past year, depletion by blood-letting, cathartics, and the free use of mercurials are not required, but will be likely to do harm.

"*b.* Opium, exhibited in decided doses, exerts a salutary influence in relieving painful symptoms, and controlling the severity of the disease.

"*c.* The nitrate of silver is a valuable remedy, employed with a view to a local and general effect.

"*d.* Tannic acid, and the acetate of lead, under circumstances denoting the propriety of astringents, are useful remedies.

"*e.* To support the powers of the system by a timely resort to tonics, stimulants, and alimentation, is an important end to be kept in view in the treatment.

"These propositions embody therapeutical principles by no means entirely new, and it is difficult to ascertain to what extent they are in conformity with prevailing opinions. The committee are, therefore, unable to say in how far they are to be considered in the light of an improvement in the management of the affection to which they relate."

On the subject of cod-liver oil as a remedy in pulmonary tuberculosis, the following remarks of the reporter may not be uninteresting to a portion, at least, of our readers.

"In view of the numerous remedies that have heretofore been supposed, for a time, to exert a curative agency in an affection which, in a large proportion of cases, has always baffled the resources of medical art, the question naturally arises: Will this share the fate of its predecessors, and after a time fall into disuse, or does it possess virtues that will secure for it a permanent position in the confidence of the profession? In so far as facts contributed during the past year may tend to supply an answer to this question, it will be practicable to determine the extent to which the improvements in practical medicine, during that period, relate to the employment of this remedy. It is remarkable that, notwithstanding the immense quantity of this medicine consumed, and the large number of cases in which it must have been directed by physicians within the short period that it has been in use, very little has been communicated during the year respecting its remedial power. The committee have noted but two contributions on the subject. One of these is a paper by Dr. James J. Levick,* resident physician at the Pennsylvania Hospital, Philadelphia; the other is by Dr. Gerhard, of Philadelphia, in the third edition of his treatise on *Diseases of the Chest.*

"Dr. Levick's paper contains notes of *fourteen* cases of phthisis, the disease being demonstrated by unequivocal physical signs, which were treated in the medical wards of the Pennsylvania Hospital, under the care successively of Drs. Wood, Pepper, and Gerhard, attending physicians to that Institution. In *all* the cases, the disease was in an advanced stage. In *six* of the number, there were present the physical signs of a cavity in each lung; in *six*, a cavity existed in one lung; and in the remaining *two* cases, the disease had advanced to the stage of softening. In none of the cases was a cure effected, although in one case there was a very marked improvement in the physical signs, as well as relief of all the general symptoms. There seemed to be an approximation to a cure in this instance. The results in the other cases are thus stated: 'In *five* the disease, though terminating fatally, appeared to be for a time arrested, and there was in these cases a decided though temporary increase of strength. *One* patient left the hospital somewhat improved, and *five* were so much benefited as to be able to return to their former occupations, believing themselves to be well; and, so far as the rational symptoms were concerned, they were really so; while in but *two* instances do we find an entire insusceptibility to any good influence of the remedy.'

"These results, although by no means commensurate with the sanguine expectations held out by some writers, appear to show a positive salutary influence. Allowance must, however, be made for the more favourable hygienic conditions in which the class of patients that seek relief at hospitals are placed irrespective of medicinal treatment. Cessation of labours and of the exposures

[* Published in the number of this Journal for Jan. 1851.—Rev.]

incident thereto, comfortable quarters, and a wholesome nutritious diet, are frequently adequate, in themselves, to effect a striking improvement in the symptoms of patients affected with this disease. If the sanitary influences of an hospital be not of the most favourable character, in an affection of this nature, they are often much superior to those from which the patient has been transferred. Another consideration is entitled to more or less weight, in estimating the value of a remedy for tuberculosis like the cod-liver oil, which, to say the least, if it be not useful, cannot be supposed to produce any active deleterious effects. In conjunction with better hygienic treatment, it has supplanted measures of therapeutics which more correct pathological views have led practitioners to repudiate, and which, it cannot be doubted, were prejudicial. The discontinuance of general and local blood-letting, long-continued counter-irritation, mercurialization, low diet, confinement within doors, &c., must be regarded as constituting a highly important improvement in the management of this affection, of recent date, if, indeed, it be as yet so generally recognized as it should be.

"Making due allowance for these circumstances, it still seems to be the most rational conclusion that the use of this remedy is an important element in the treatment of tuberculosis. That it is adequate to effect complete recovery by any special curative virtue, is far from being established; but that it has a certain degree of remedial efficacy, whatever may be the mode in which it is exerted, is highly probable.

"These conclusions accord with the views of Dr. Gerhard, expressing the results of his experience in the employment of this remedy. This author, after proposing the inquiry: 'Does cod-liver oil ever cure pulmonary consumption, when it is decidedly advanced, and cavities exist in the lungs?' holds the following language: 'For my part, I must confess that I have never met with a case in which the physical signs, as well as the general symptoms, have entirely disappeared. Indeed, in most cases of the disease, we do not find that the physical signs diminish as decidedly as the general symptoms. Sometimes the cavernous respiration and the flat percussion actually increase, while the patient is gaining flesh, and his fever is considerably lessened. In these cases, however, the tuberculous deposit goes on, but the patient becomes less sensible to its effects in the general system, and, therefore, no longer emaciates, or even actually gains flesh, while the tubercular deposition continues. We are, therefore, obliged to conclude that cod-liver oil is not properly a specific against phthisis, and does not usually prevent the tuberculous deposit; it simply increases flesh, notwithstanding the disease, and sometimes may indirectly bring about a permanent cure in cases in which the tuberculous tendency has been ameliorated, and is therefore readily removed. My own impression is, that cod-liver oil will be more certainly useful in those cases in which patients are indirectly disposed to consumption, and have inherited a strong tendency to it, although it is not yet developed. I would recommend the use of the remedy in these cases, especially when the patient is thin or slightly emaciated; and I would direct it to be taken as an article of food, rather than of medicine, for a long time.'

"The writer of this report would add that, after an opportunity of observing the apparent effects of this remedy in numerous cases of tuberculosis, the conclusions at which he had arrived are essentially similar to those contained in the foregoing extract.

"The *Transactions of the Medical Association of Alabama*, a copy of which has been received since the foregoing was written, contains an article by Dr. William H. Anderson, of Mobile, submitting clinical facts relative to the value of cod-liver oil in tuberculosis and various other affections, which constitute important additions to the observations already presented. The following is a digest of the facts appertaining to phthisis: In *one hundred and twenty-seven* cases, no other remedy was used. Of these cases, *sixty* were in the incipient stage, the symptoms and signs consisting in prolonged expiration, dulness under one or both clavicles, slight cough, very little expectoration; and in *eighteen*, spitting of blood in small quantities, and to a greater extent in *four* cases. *Forty-one* were descendants of phthisical parents; *thirty-eight* had been temperate and well nourished; while *twenty-two* had been badly fed, badly clothed, and without any regular homes. In the remaining *sixty-seven* cases, the disease had advanced to the stage of excavation. The physical signs of cavities, of greater

or less size, existed. Excluding the cases which proved fatal shortly after admission, *thirty-seven* cases were treated solely with cod-liver oil, for a period of three months, with the following results: Of the *sixty* cases in the incipient stage, there was an evident amelioration in *fourty-four;* but in no single instance did the dulness leave the affected region. The amelioration was most evident in those who were of the sanguine lymphatic temperament.' The writer adds: 'We cannot say, then, that any one patient was cured; but that the general condition was improved, there can be no doubt.'

"Of *fifteen* cases in which small cavities existed, *thirteen* improved under treatment; and *nine* improved enough to consider the disease for the time stayed. *Two* of the fifteen who were not improved had an intolerance of the oil, and took it only in small quantities. Of the *twenty-two* patients who had large cavities, there was manifest improvement in *eleven*. This improvement consisted in increase of flesh, arrest of diarrhœa, alleviation of the cough, and relief of the laryngitis. The *eleven* were but little affected by the remedy.

"Dr. Anderson states that, 'after three months, the chance of death or recovery amounted to about the same as when they entered.' The greatest quantity taken amounted to three-fourths of a pint per day. The average dose was about one ounce three times daily.

"These observations were made in hospitals and dispensaries. No further statement than this is made with respect to the condition of the patients."

The general summary of the reporter, in reference to the therapeutics of typhoid fever, drawn from the communications of American practitioners, published during the preceding twelve months, is as follows:—

"The foregoing contributions, evidently by practitioners of intelligence and experience, exhibit, in some points, a striking agreement, and in a few important particulars, discrepancy of views. In each, much stress is laid on sanitary as distinguished from therapeutical measures. Depletion, in all, is considered injudicious, and the free use of cathartics, save at the incipient stage of the disease. They agree in placing high value on the liberal use of opiates. Mercurialization is disapproved of in the first paper; it is advised in the second, to relieve pneumonic complications; and in the third, to prevent their occurrence. In neither is it recommended for the disease *per se*. The chief points of disparity relate to stimulants and alimentation. Dr. Sutton restricts his patients to rice-water and gruel until convalescence; while Dr. Byford and Dr. Little esteem it a matter of great consequence to resort to more nutritious aliment early, and to make this a prominent part of the management. The two former rarely employ diffusible stimulants, and the last-named writer does not appear to lay much stress on this measure.

"The attention of the profession, as is well known, has been of late years specially called, by Dr. Graves, of Dublin, Dr. Gerhard, of Philadelphia, and others, to the importance of alimentation in fever; and also by various writers to the advantages of a free use of stimulants. The personal observations of the writer of this report have led him to think that, in these respects, the management of the disease has been greatly improved. His observations, however, like those of the writers just mentioned, have been mostly made in hospital practice. In view of the moderate rate of mortality in the cases reported by Dr. Sutton, in which an opposite course was pursued, two questions are suggested, viz.: 1. May not the importance of stimulants and alimentation be over-estimated by those who rank these among the first elements of the treatment of fever? 2. May not the principles of treatment in these, as well as in other respects, be subject to material modifications in their application, on the one hand, to patients of the poorer classes of society, in large cities, and the inmates of public institutions; and, on the other hand, to those occupying higher positions in the social scale, and to the population of a rural district? A third question may be added, viz.: May not this disease, as it occurs in a southern latitude, and in a different topographical situation, present in these, and other particulars relating to its management, different, and, perhaps, quite opposite therapeutical indications?

"The committee will content themselves with propounding these questions. To discuss them, would be a step beyond the proper limits of this report; and, moreover, the questions are of a character to call for the contribution of new facts, rather than present discussion.

"In a letter received from Dr. Rufus Haymond, of Brookville, Indiana, a member of the committee, he states that, in the treatment of typhoid fever, as it prevails in the section of country in which he resides, the reliance, in the latter stages, is mainly on the *terebinthinates*, of which the oil of turpentine is to be preferred."

In proceeding to consider the history of the epidemics that have prevailed in the United States, the report offers some very judicious remarks on the investigation of these wide-spread affections, in order to trace causes, determine laws, and to endeavour to deduce practical results proportionate to the amount of information collected, followed by a few general hints as to the means best adapted to the profitable study of epidemic diseases in this point of view.

Epidemic cholera is referred to, as having prevailed to a considerable extent within the limits of the United States, during the year 1850; its progress, as heretofore, being attended by a large fatality. Its ravages were chiefly confined to places situated on or near the Mississippi and Ohio rivers, the north-western lakes, more especially to the two former, and to California. In the States situated on the Atlantic coast, and between the latter and the Alleghany mountains, it does not appear that the disease has prevailed as an epidemic.

The interesting history of the progress of the epidemic contained in Dr. Flint's report, presents no facts calculated to throw additional light upon the etiology of the disease.

The notices given of epidemic dysentery, typhoid and typhus fevers, rubeola, scarlatina, and variola, are brief and imperfect, owing to the want of authentic materials within reach of the committee. Two communications in reference to the prevalence of epidemic erysipelas, in Indiana and Iowa, were received by the committee, from Drs. Mathews and Henry. They present no points of particular interest.

A more extended account is presented of a peculiar epidemic, which prevailed in many parts of the Southern States, during the summer of 1850. The disease is generally known as the *Dengue*, a name of unclassical and somewhat uncertain derivation.

"In common parlance it was frequently called the '*break-bone fever*,' sometimes '*neuralgic fever*.' Drs. Cooke and Copland apply to an epidemic affection, supposed to be analogous, the title of '*scarlatina rheumatica*,' an appellation less significant than the more homely names before mentioned, and certainly not more appropriate, inasmuch as the disease does not appear to have any essential relations either with scarlatina or rheumatism.

"This epidemic is rare in its occurrence, as well as singular in its characters. In 1827–8, it prevailed extensively in the West India Islands, and thence extended over the same portions of the United States which it has recently visited. Its progress, history, &c., at that time, formed the subject of an able memoir by Prof. S. H. Dickson, of Charleston, South Carolina, in *Bell's Medical Library* for 1839. Since its former appearance in 1828, no analogous epidemic disease has prevailed, to much extent, until the past summer. An affection, presenting characters strikingly similar, prevailed in Philadelphia in the summer and autumn of 1780, and was described by Dr. Rush. It was then commonly known as the '*break-bone fever*.' Other epidemics, supposed to be identical, have occasionally occurred in other parts of the world.

"The disease is characterized by an invasion, in some instances sudden, but in other cases after the usual prodromes of a febrile attack; the occurrence of

a chill in a certain proportion of cases, not invariably; anorexia, and usually, nausea and vomiting; febrile movement, more or less intense, occasionally not prominent; acute pains in the head, eyes, muscles of the neck, loins, and extremities, these being severe and prominent traits of the disease. The symptoms continue for a period, varying from a few hours to several days, when, in the large majority of cases, an eruption becomes developed, which, so far from being uniform in its physical characters, presents great diversities, among which are represented a large share of the *cutanei*. Hemorrhages from the nose, mouth, bowels, and uterus are apt to occur. The eruption generally follows the cessation of the febrile movement, and the patient shortly begins to convalesce. The stage of convalescence is frequently protracted and tedious. The disease is followed by a disproportionate prostration of the muscular strength; and the recovery of the appetite, strength, &c., is slow.

"The termination is uniformly in recovery. The disease has been known to prove directly fatal in scarcely a single instance.

"Active treatment seems not to be required, and the measures which are indicated vary, in different cases, according to the diversity of the symptoms presented.

"This is a brief physiognomical sketch of this remarkable epidemic. The committee are of opinion that a disease so infrequent in its occurrence, so peculiar in its historical features, and of so much interest in its pathological and etiological relations, merits a more full account than would be appropriate in this report, in the case of an epidemic whose symptomology is better known from having been oftener observed and described. Inasmuch as the past year has been signalized by the occurrence of this epidemic, there seems to be a propriety in making the Transactions a repository for a descriptive history, to which reference may be made should the disease recur, or should any person be desirous, at any time, to review the events which belong to it. The materials for an historical abstract are chiefly contained in three able memoirs on the subject, as follows: 1. '*A History of the Epidemic Dengue, as it prevailed at Charleston, in the summer of* 1850,' by Prof. S. H. Dickson. [*Charleston Med. Journ.*, Nov. 1850.] Prof. Dickson's name is especially identified with this disease, from his having been the historian of its former visitation in 1828, and he has contributed more largely to what is known respecting it than any other writer. 2. '*History of the Break-bone Fever, an Epidemic which prevailed at Charleston, in the summer of* 1850,' by Wm. T. Wragg, M. D. [*Charleston Med. Journ.*, Jan. 1851.] This memoir, ably drawn up, and evidently written by a careful observer, was read before the Medical Society of South Carolina, Dec. 9, 1850, on leaving the presidential chair. 3. '*History and Treatment of the Dengue Fever, prevailing in Augusta, in the year* 1850,' by Henry F. Campbell, M. D., &c. [*South. Med. and Surg. Journ.*, Jan. 1851.] The last is also a paper prepared with care and ability. In addition to these papers, Dr. Fenner, of New Orleans, has contributed reliable observations, which are contained in his communication accompanying this report, and several brief articles have appeared in different medical journals.

"Entertaining the views that have been expressed, the committee proceed to state the more important circumstances derived from the above sources, and present, as a supplement to the report, a condensed account of all the *facts* appertaining to the disease which are contained in the several papers referred to.

"In so far as accounts of the disease in different quarters have been contributed, there appears to be great uniformity, not only in its phenomena, but in its progress, duration, &c. It seems to prevail especially in cities; yet there is a striking exception to this in the report from New Iberia, La. Other exceptions may have existed of which there have been no reports.

"Long continued dry and hot weather preceded the development of the epidemic in all the places in which it has been described. The disease, too, is almost peculiar to a southern climate. These circumstances are involved, directly or indirectly, in its production.

"Respecting its pathology, beyond the statement of its being a species of essential fever, the committee do not feel prepared to offer any remarks; nor can they assume to say whether it is to be regarded as an affection properly

entitled to a distinct, local habitation and name in nosology, or whether it is a more common disease, presented with uncommon characters. The latter is a question which would be more properly discussed by those prepared by clinical study of the epidemic, and who are, at the same time, familiar with the diseases of the South.

"The subject of contagion is one of interest and importance. Prof. Dickson maintains that the disease is contagious, and says he supposes that to be generally admitted. Dr. Wragg entertains an opposite opinion, and adduces several considerations in support of his belief of its non-contagiousness. These are:—

"1. Its rapid and almost simultaneous diffusion, precluding the idea of personal communication.

"2. The very limited extent to which it prevailed in the vicinity of Charleston, and the absence of evidences of its having been transported into the interior, although the city was thronged with persons from all parts of the neighbouring country, on business. He mentions in this connection several instances which had come to his knowledge, in which, after the greatest possible exposure, the disease was not developed.

"3. The incredibly short period of incubation, on the supposition of a contagious miasm having been imbibed.

"To these considerations might be added another of considerable weight, viz.: the short and uniform career of the epidemic in the places in which it prevailed, and its entire as well as speedy disappearance. A disease propagated by contagion, it would be supposed, should linger longer, and not be so soon and completely extinguished. Moreover, its apparent connection with climate, season, and certain unusual conditions of the atmosphere, as respects heat and moisture, would seem to militate against its diffusion by means of contagion.

"The similarity of the facts bearing on the question of contagion, with those which obtain in epidemic cholera, will not fail to suggest itself. And, in this disease, as in epidemic cholera, it would seem as if certain facts favoured the supposition of, at least, its *portableness*. In the very interesting description of the affection as it prevailed in New Iberia, La., it is stated, that 'the first case originated in a gentleman, who came from New Orleans, and was taken sick a short time after his arrival;' but, the writer continues, 'there was no connection between the first and second cases, the subject of the first being a stranger; no one but his medical attendant visited him.' 'Again,' he adds, 'persons from the country, who visited our village, and remained any length of time on business, or to nurse the sick, took the disease on their return home; but in no instance did it spread among the other members of the family.

"Whilst analogy and the burthen of facts seem to be opposed to the contagiousness of dengue, it does not appear conclusively settled, that the development of the disease may not have, in certain instances, some connection with the existence of previous cases."

As appendices to this report, are presented "*An Account of Cholera as it appeared in Cincinnati, during the year* 1850," by Geo. Mendenhall, M.D.; "*Report on the Fevers, &c., of New Orleans,*" by E. D. Fenner, M.D.; "*A Descriptive Account of the Epidemic Fever called Dengue, as it prevailed at Charleston, South Carolina, and Augusta, Georgia, during the summer of* 1850," embracing all the important facts contained in the reports of Drs. Dickson, Wragg, and Campbell; and finally, "*A Brief Account of an Epidemic Fever which prevailed in the County of Alleghany, New York, and its vicinity,*" communicated in a letter to the Chairman of the Committee by Dr. R. P. Stevens.

D. F. C.

The Report of the Committee on Surgery was presented by Dr. Paul F. Eve. The most important items contained in it, are the tables of Operations performed, and of Compound Fractures occurring, in the New York Hospital, and a statistical statement of all the known operations of Ova-

riotomy from 1701 to 1851. The first has been prepared by Frederick D. Lente, M. D., Resident Surgeon at the Hospital; the second has been compiled by Washington L. Atlee, M. D., of Philadelphia. In addition to these contributions, is a record of six cases of œdematous Laryngitis, successfully treated by scarifications of the epiglottis and aryteno-epiglottic folds, drawn up by Dr. Gurdon Buck, Surgeon to the New York Hospital; and likewise a number of more or less curious and interesting cases in Surgery, and of plans of treatment of different surgical affections, extracted from the medical journals of this country or obtained from private sources.

The Committee takes occasion to "express an undiminished confidence in anæsthetic agents, and a grateful admiration of the blessings they have conferred on mankind." And, we presume, that even those who were at first most opposed to the employment of these agents, and most skeptical as to their importance, are now willing to admit that a sufficiency of evidence has been accumulated during the past five years to warrant the belief that, when judiciously used, they are, in the vast majority of instances, not productive of immediate injury, or of danger to life. But, apart from the absence of pain attending the performance of operations during the anæsthetic state, have we reason to believe that the result of these operations is more or less favourable than when this condition has not been induced? This is, after all, the question of chief importance, and it is this which the surgeon should endeavour to determine. It is very desirable to prevent and assuage human suffering during surgical operations, and to be able to remove the dread which every one must experience, without some anæsthetic aid, at the anticipation of undergoing such ordeals. It is, moreover, very gratifying to the operator and to the spectators that the patient lies a tranquil, passive subject, instead of struggling and perhaps uttering piteous cries and moans, while the knife is at work; and this facilitates, undoubtedly, in many instances, the performance of the operation. But the operation itself is, under the vast majority of circumstances, a comparatively small part of the treatment, and should be so considered. And the surgeon who thinks only or chiefly of the state of the patient during this act, who is most desirous that there shall be no pain, no struggling—nothing, in short, to render the operation unpleasant to patient and friends, and troublesome to himself—is sadly wanting in his duty to all and to his profession. It becomes us, therefore, to ascertain, so far as we have the means, what is the ulterior effect of Anæsthesia upon the result of surgical operations; and until this problem is decided in its favour, we cannot think that any committee acts with good taste, or displays sound judgment, in reflecting in terms of disapprobation upon those surgeons who may have refrained from using anæsthetic agents. We do not see, in the whole Report, that the Committee has made any attempt to determine this question in the only way in which a legitimate conclusion can be arrived at—by careful comparative investigations. There are assertions and surmises, but not a single proof advanced, not a comparison instituted. Lightened by the ethereal vapours which the Committee so warmly extol, the Reporter seems, for the moment, to have been wafted into a region of placid sunshine, above the din and turmoil of conflicting facts which roll and thunder at his feet.

We are not an opponent of anæsthetics, with certain limitations. We most cordially agree with the Committee that they are often productive of much good; we acquiesce in the necessity of caution in their administration, which they recommend; and we thank them for correcting the erroneous, but commonly-received opinion, that there is little or no danger from the employment of sulphuric ether by inhalation. So far, we have no fault to find with the

Report, but we do object to the glowing panegyric pronounced by the Committee, (an official Committee, which professes to report to the National Medical Association the "Condition and Progress of Medical Knowledge in our country, during their term of service,") without any corresponding and adequate exhibition of facts to substantiate it. As a fair specimen of the amount and kind of argument displayed with respect to the value of Anæsthesia in Surgery, we quote the following sentences: "During the past year or fifteen months, we are much gratified in reporting three successful amputations at the hip-joint." (p. 269.) "It is difficult to obtain the exact number of times this very formidable operation has been performed in the United States, but the Committee believe the success of our surgeons with it has been as good as in other countries. They are pleased to notice the fact, that to anæsthetic agents is due a much greater proportion of recoveries after this amputation, than formerly. Not only was Anæsthesia induced in the above instances referred to, occurring during the year, but R. B. Wigstrom, Esq. of Lahore, E. Indies, and Dr. Restelli of the Sardinian army, report, within the same period, a like success under the same circumstances." (p. 270.) Here, it will be observed, there is no comparison of numerous cases; but the Committee select the three successful instances which happened in this country, and those which occurred in the practice of two surgeons abroad, and from these declare "the fact that to anæsthetic agents is due a much greater proportion of recoveries after this amputation, than formerly." *Apropos* of the eulogy upon Chloroform, quoted by the Committee from Mr. Skey's book on operative surgery, based upon the use of this agent in St. Bartholomew's Hospital, London, during which, in 9000 cases, "it has not left a stain upon its character as an innocuous agent of good;" we have just seen a letter from Mr. Paget, of the same hospital, addressed to Dr. Mütter, of this city, in which he says that two cases have recently occurred in that institution which prove to the officers that they cannot be too careful in the employment of chloroform, and that the most unfortunate results may most unexpectedly follow its use.

We hardly think that we are as yet in the possession of sufficient statistical information to permit us to form an accurate conclusion, as to whether the ulterior effects of anæsthetics upon patients who have undergone important operations are beneficial or prejudicial. But we propose examining this point, so far as the reports which we have received will enable us to do. We shall take, for this purpose, the statistics of Amputations of the large limbs, because they happen to be most accessible. We shall examine the two reports of Dr. Hayward, of the Massachusetts General Hospital, published in the *Boston Medical and Surgical Journal*, Oct. 2d, 1850, embracing a period of nineteen years; the two reports of the New York Hospital, the first published in the *American Journal of Medical Sciences*, July, 1848, the second in the volume of the *Transactions of the American Medical Association*, now under our notice, comprising an experience of twelve and a half years; finally, the reports from the Pennsylvania Hospital, by Dr. Norris, contained in the numbers of the *American Journal* for August 1838 and May 1840, involving a period of ten years, together with the result of the experience in this hospital from Jan. 1st, 1840, to Jan. 1st, 1852. The last-mentioned statistics will soon be published in the *American Journal;* but, by the kindness of Dr. Norris, we have been favoured with the result. We shall not be minute in specifying the nature of the cases for which amputation was done, because the reports extend over too great a number of years, and the cases themselves are too numerous, to require this.

In Dr. Hayward's first report, 67 patients were operated upon; of these,

15 died, or 1 in $4\frac{7}{15}$. Of 45 operations performed for chronic diseases of the limbs, death followed in 5 instances, or 1 in 9; of 22, for recent injuries, 10 were fatal, or 1 in $2\frac{1}{5}$. This was prior to the introduction of anæsthetics, by inhalation, into surgical practice.

By his second report, of 74 patients 17 died, or 1 in $4\frac{6}{17}$. The operation was performed on 40, for diseases of the limbs, of whom 5 died, or 1 in 8; on 34 for recent injuries, of whom 12 died, or 1 in $2\frac{5}{6}$. Of these 74, 52 inhaled some anæsthetic agent; chloroform in one instance, sulphuric ether or chloric ether in the others; and of the 52, 13 died, or 1 in 4; while of the 22 who were not anæstheticised 4 died, or 1 in $5\frac{1}{2}$. (By referring to Dr. Hayward's report, it will be seen that he has made a mistake in his enumeration of the number of persons who were subjected to the influence of anæsthetics, and also in the mortality amongst these patients. This error we have corrected.) Throwing together all in both reports who took no anæsthetic, we find that they numbered 89, of whom 19 died, or 1 in $4\frac{13}{19}$. Of the whole number of patients operated on, from both tables, for chronic diseases, without anæsthetics, 59 in number, 7 died, or 1 in $8\frac{3}{7}$; of the total of 26 operations for diseases, with anæsthesia, 3 died, or 1 in $8\frac{2}{3}$. Of the aggregate number of operations practised for injuries, without resort to anæsthetics, amounting to 30, 12 were fatal, or 1 in $2\frac{1}{2}$; of the 26 in which anæsthesia was induced, 10 died, or 1 in $2\frac{6}{10}$.

Thus far, then, the examination is rather adverse to the employment of anæsthetics in amputations.

In looking over the reports of the amputations in the New York Hospital, we find them amenable to two important objections, so far as concerns our present inquiry. In the first place, it is admitted, in both the reports, that from the imperfect manner in which the hospital books are kept, many cases have probably been unrecorded, or recorded in such a way as to render it difficult or impossible to ascertain, at any subsequent period, their true nature and results; and it is certainly not unfair to suppose that, without any intention whatever of preserving an incorrect record of hospital experience, cases which terminate speedily in death, without presenting any particularly interesting or noticeable phenomena, are in this manner accidentally omitted from the register and forgotten. Secondly, with reference to the employment of anæsthetics, the fact of their having been used is mentioned of only about two-thirds of the patients subjected to amputations; while one can hardly fail to feel convinced, by an examination of the tables, that it is altogether probable that these agents were made use of in many other cases. And moreover it is stated, at the commencement of the last report, "*in almost every case*, either chloroform or ether was employed; generally the former, until the occurrence of a fatal case from it in this hospital; afterwards the latter, from which we have never had any bad consequences, and which has never failed to prove effectual." (p. 315.)

According to the first New York Hospital report (*Amer. Journ. Med. Sci.*, July 1848, pp. 33–43), the number of patients operated on was 91, of whom 26 died, or 1 in $3\frac{1}{2}$. Of the 91 amputations, 36 were primary, for recent injuries, with 13 deaths; and 55 secondary, for older injuries, and for diseases of the limbs, with 13 deaths; or, for the former, 1 death in $2\frac{10}{13}$; and for the latter, 1 death in $4\frac{3}{13}$ operations. (It will be observed, that our enumeration of the number of deaths, after primary amputations, is three more than that of Dr. Buel, in his report, p. 39; but he has accidentally committed an error in his summing up.)

By the second New York report, published in the fourth volume of the Transactions, as already indicated, we find that 63 amputations of large limbs

were peformed; of this number, 28—instead of 25, as inadvertently stated at p. 322—proved fatal, or 1 in 2¼. Of the aggregate number of operations, 40 were for injuries, but not always performed within twenty-four hours from the occurrence of the accident; indeed, in many instances delayed so long as from five to thirty-seven days. This delay, although proving the exceedingly laudable anxiety of the surgeons of the hospital to save the limbs of their patients, rather than to reap the not always, unfortunately, barren, yet, truly worthless glory of the professed amputator, has, of course, rendered the success of their operations less considerable, numerically speaking, than it would have been, perhaps, had they removed the injured limb at an earlier moment. (It would be very desirable to have at our command a sufficient number of well recorded cases of amputations upon large limbs, and their results, together with the date of the operation, from the time of reception of the injury, in every case, in order that an approximate conclusion might be arrived at, as to the comparative advantages and disadvantages to life and limb, resulting from delaying the operation. Perhaps the examination of the different reports now under consideration may be of value in such an inquiry.) Of the 40 amputations performed, as above stated, upon comparatively recently injured persons, 21 proved fatal, or 1 in 1$\frac{19}{21}$. Of the remaining 23 operations for long-standing injuries and diseases of the limbs, 7 were fatal, or 1 in 3$\frac{2}{7}$ths.

Of the 63 patients operated upon, one is stated not to have been in the anæsthetic state; 41 are said to have been in this condition, and concerning the remaining 21 no mention is made of anæsthesia. Of the 41 who were under the influence of these agents 17 died, or 1 in 2$\frac{7}{17}$ths; of the 22 not reported as having been thus affected, 11 died, or 1 in 2. But, for the reasons before urged, this result is not absolutely reliable. And in this connection it may be well to quote from the report, at p. 323, some observations by the narrator. This gentleman is struck with the much more favourable result of the hospital amputations, as presented in the first report, compared with that exhibited in his own, the deaths in the former being 1 in 3½, in the latter, 1 in 2¼. And, after suggesting that this may be merely coincidental, and that, upon the same principle, "an unusual success may be looked for during the next two or three years," he remarks: "Anæsthetics came into general use about the period of the commencement of these statistics. May not the employment of these have had its influence upon the mortality? This is a very important question. We do not deny that it may have had some influence in augmenting the fatality of operations; but we have seen no reason to infer that it has, except, perhaps, the fact that *union by adhesion* seems to have been much less frequent since the introduction of anæsthetics into this hospital than before. Whether the two are in relation of cause and effect, it is, we fear, impossible to determine at present." We are glad to see that, as we should have anticipated, the distinguished surgeons of the New York Hospital have their attention directed to the solution of this important question; and we doubt not that, by patient observation and careful recording of all their cases, we shall, at some not very remote period, be enabled to form a more correct opinion in the premises than we can do, from the gratuitous assumption of the Report under review.

If, then, from the statistics thus far examined, we institute a comparison between the mortality from amputations without anæsthesia, and that with this condition, we have the following result; the whole number of amputations embraced in the Boston and New York reports, is 296, of which 86 proved fatal, or 1 in every 3$\frac{14}{43}$ds. Anæsthetics were employed in 93 of the patients, of whom 30 died, or 1 in 3$\frac{3}{10}$th; of the whole number of patients operated upon, 203 were not anæstheticised, and of these 56 died, or 1 in 3$\frac{5}{8}$ths.

We come now to the examination of the reports from the Pennsylvania Hospital.

The tables published, include the result of 80 amputations practised upon 79 patients; of these 22 died, or 1 in $3\frac{1}{2}\frac{3}{2}$ds. Of the operations, 35 were primary, performed within twenty-four hours of the receipt of the injury, and of this number 11 proved fatal, or 1 in $3\frac{2}{1}$ths: four of the deaths occurring within twenty-four hours after the operation. Twenty of the amputations were secondary, for accidental injuries; of these 7 proved fatal, or 1 in $2\frac{4}{7}$ths. Twenty-five—two having been practised upon one patient,—were for chronic affections, of which 4 were unsuccessful, or 1 in 6 of the patients died. (*Am. Journal, May*, 1840, p. 38.)

During the 10 years intervening between Jan. 1st, 1840, and Jan. 1st, 1850, 116 capital amputations were performed; of these, 25 were fatal, or 1 in $4\frac{6}{2}\frac{4}{5}$ths. Of the whole number of patients, 76 were operated on for recent injuries, within twenty-four hours of the occurrence of the accident, and of these 15 died, or 1 in $5\frac{1}{1}\frac{1}{2}$ths; 21 of the amputations were secondary, for accidental injuries, and of these 9 were fatal, or one in $2\frac{1}{3}$d; 19 were for the cure of chronic affections, of which only 1 was unsuccessful; 14 were at joints, with 1 death.

In 1850, the total number of capital amputations performed was 23, of which 3 were mortal, or 1 in $7\frac{2}{3}$ds. Only one of these was done for disease, and this was for spontaneous grangrene of the leg, which was fatal.

In 1851, the number of amputations was 11, all but 1 (which was successful,) for recent injuries; 2 of these proved fatal, or 1 in $5\frac{1}{2}$.

The aggregate of the amputations of large limbs performed during the last twenty-two years in the Pennsylvania Hospital amounts, then, to 230 upon 229 patients. The mortality among these was 52, or 1 in $4\frac{2}{5}\frac{1}{2}$ds.

If the total number of persons operated upon, as exhibited in all the reports thus examined, be taken, and also the aggregate of deaths among them, it will be found that there have been in all 524 subjects of capital amputations, with 138 deaths, or 1 death in $3\frac{5}{6}\frac{5}{6}$ths persons. Of this number 93 patients inhaled some anæsthetic agent, with 30 deaths, or 1 in $3\frac{1}{1}\frac{0}{5}$ths; 431 took no anæsthetic, and of this class 108 died, or 1 in $3\frac{1}{1}\frac{0}{0}\frac{7}{8}$ths, almost 1 in 4.

We present in the following tables the statistics which we have used, so as to exhibit the results in a more condensed form:—

AMPUTATIONS.	Boston.	N. York.	Philadelphia.	Total.	Proportion of deaths.
With anæsthetics,					
For injuries.—Total	26	23	0	49	
Cured	16	12	0	28	
Died	10	11	0	21	1 in $2\frac{1}{3}$
For diseases.—Total	26	18	0	44	
Cured	23	12	0	35	
Died	3	6	0	9	1 in $4\frac{8}{9}$
Without anæsthetics,					
For injuries.—Total	30	83	184	297	
Cured	18	53	138	209	
Died	12	30	46	88	1 in $3\frac{1}{8}\frac{7}{8}$
For diseases.—Total	59	31	45	135	
Cured	52	24	39	115	
Died	7	7	6	20	1 in $6\frac{3}{4}$

PROPORTION OF MORTALITY AFTER AMPUTATIONS IN EACH CITY.

	Boston.	New York.	Philadelphia.
With anæsthetics,			
For injuries	1 in $2\frac{6}{10}$	1 in $2\frac{1}{11}$	0
For diseases	1 in $8\frac{1}{2}$	1 in 3	0
Without anæsthetics,			
For injuries	1 in $2\frac{1}{2}$	1 in $2\frac{13}{20}$	1 in 4
For diseases	1 in $8\frac{3}{7}$	1 in $4\frac{8}{9}$	1 in $7\frac{1}{2}$

GENERAL PROPORTION OF DEATHS TO CASES.

	Total.	Injury.	Diseases.
Boston	1 in $4\frac{13}{22}$	1 in $2\frac{6}{11}$	1 in $8\frac{1}{7}$
New York	1 in $2\frac{3}{14}$	1 in $2\frac{3}{4}$	1 in $3\frac{8}{12}$
Philadelphia	1 in $4\frac{1}{2}$	1 in 4	1 in $7\frac{1}{2}$

It may interest our readers to compare these results of amputation in the United States with those observed in Europe. In the *London Medical Gazette* of June 9th, 1838, Mr. Benjamin Phillips published a statement of the termination of amputations in France, Germany, and Great Britain. From France he reports 203 cases, with 47 deaths, or 1 in $4\frac{1}{4}\frac{1}{7}$ths; from Germany, 109 cases, with 26 deaths, or 1 in $4\frac{7}{26}$ths; from Great Britain 233 cases, with 53 deaths, or 1 in $4\frac{3}{53}$ds. These are said to be taken both from hospital and private practice, and to have been carefully collected.

From these statistics, so far as they can be considered sufficient to admit of a reliable inference, we are to conclude that anæsthetic agents rather increase the mortality after amputations practised upon the large members.

We are aware that the conclusions deducible from the statistics collected by Dr. Simpson of Edinburgh (Anæsthesia in Surgery and Midwifery,) do not accord with those which flow from our own. But at the time of the publication of Dr. Simpson's book, the employment of anæsthetics had but just commenced: the volume was given to the public in the fall of 1848, and these agents were introduced into European practice not two years previously. Consequently, the number of cases reported in his table is small as compared with that of cases non-anæstheticised. It had not been sufficiently tested in the British hospitals, from which he derives his data. This is evident from the fact that from several of the large metropolitan hospitals, he is not furnished with a solitary case of some important and not unfrequent amputation, particularly of primary amputations. Thus, for example, no case of primary amputation of the thigh is reported from the large hospitals and infirmaries of Aberdeen, Birmingham, Bristol, Dublin, Liverpool, Manchester, Glasgow, nor from the King's College, St. George's, Middlesex, and Westminster Hospitals of London, nor from several other smaller institutions; neither do many of these same establishments furnish a single instance of primary amputation of the arm or leg. Indeed, of the 302 cases which he reports, 73 only are primary, and 229 secondary amputations. On the other hand he collates 618 cases of amputations performed in thirty British hospitals, for the few years preceding the employment of anæsthetics. Of these 230 are primary, and 388 second-

ary; a much larger proportion of primary cases, (which are the most unsuccessful, it will be remembered), than in the first series. The deaths among the patients who inhaled anæsthetics were 1 in $4\frac{6}{7}$ths; of those who did not inhale, 1 in $3\frac{3}{5}\frac{3}{7}$; the mortality in the amputations from injuries, was in the former 1 in $2\frac{2}{3}\frac{3}{7}$ths, for diseases 1 in $4\frac{5}{6}$ths; in the latter, for amputations for injuries, 1 in $2\frac{7}{14}$ths, for diseases, 1 in $4\frac{8}{9}\frac{8}{5}$ths. But this average contrasted with those obtained in Boston and Philadelphia, do not speak very loudly in favour of anæsthesia; indeed, in some particulars the comparison is very unfavourable to the use of anæsthetic agents.

We may remark here, as being pertinent to this investigation, that the numbers which we have analyzed are susceptible of having very different interpretations put upon them, according as they are viewed in the aggregate, or in smaller groups. And they offer a renewed proof, if any further evidence were necessary, that, in order to arrive at anything like a reliable conclusion concerning the propriety of anæsthesia in its ulterior and most important effects upon surgical practice, more evidence is necessary; reports, from various sources, of the true results of the employment of anæsthetics in numerous cases must be waited for.

It seems, so far as we can ascertain from various sources, that the *rage* for anæsthesia is becoming calmed. "The sober, second thoughts" of medical men are beginning to act, and to examine the question in a more philosophical spirit than it was possible to do at first. For amidst the storm of applause which burst from the doctor, the divine, the orator, the poet, as well as the patient, "the still, small voice" of reason could not be heard. It were indeed a heavenly boon to mankind to discover some agent whereby pain might be annihilated, at pleasure and without danger. And for a time it seemed that the boon had been bestowed. But the blessing is not unalloyed. One of the sources of danger, apart from those which may exist at the time of the use of the letheon, and just afterwards, has already been hinted at in the quotation which we made from Dr. Lente's report. It can hardly be supposed that so subtle an agent as ether or chloroform, can be introduced into the blood without decidedly modifying its constitution in some way. Other observers have formed the same opinion which Dr. Lente seems to be inclined to adopt, concerning the effect of these agents in many instances. In a paper published in the last number of this Journal (January 1852), Dr. Porter, of the army, expresses the conviction that, in the cases in which he saw them employed during the late war with Mexico, they exercised a decidedly unfavourable influence upon the state of wounds, and upon the result of operations. And, as it has a direct bearing upon the subject of Anæsthesia, though not in particular connexion with surgery, we will quote from the last edition of Ramsbotham's *Obstetric Medicine and Surgery*, just published in London, the following sentences: "I unhesitatingly declare my conviction that the treatment (by Anæsthesia,) is fraught with extreme danger; and that it will at no very distant time, unless, perhaps, in some exceptional cases, be banished from the practice of the judicious obstetric physician." (p. 154.) The author then enters fully into the examination of its dangers.

The statistical tables of other operations furnished by Dr. Lente are very interesting, and constitute valuable additions to this department of surgery. It is to be regretted that hitherto so little attention has been bestowed upon the compilation of statistics in surgical practice; if we possessed a larger amount of positive knowledge, thus derived, as to the result of all operations, exclusive of those properly belonging to minor surgery, we are persuaded that the *lust* for operating, now so common, would be much lessened, and that the public would be thereby a gainer.

Twenty-nine operations are reported as having been performed upon large arteries, viz.: for *Popliteal Aneurism* 9; by *ligature* of the femoral artery in 8 cases, of which 6 were cured (in one of which pressure had been previously tried in vain) and 1 died; and by *compression* in 1 case, which was successful; for *Femoral Aneurism* 7; by *ligature* of the *femoral* artery in 3 of the patients, of whom 1 died, the thigh having been amputated subsequently to the ligature of the artery; by *compression* of the femoral in 2 cases, both of which were cured; by *ligature* of the *common iliac* in 1, in which death followed upon the same day, from exhaustion, it is stated; and of the *external iliac* in 1, which also proved fatal, upon the eleventh day, from gangrene. The *common carotid* was tied twice; once for an encephaloid tumour in the diploe of the skull, unsuccessfully, and once for a wound of the throat, successfully. The *common and internal carotids* were tied in one case, successfully, for a traumatic aneurism. *The carotid* (we presume the *external*), four times for aneurism; one of the patients died (from phlebitis), the other three recovered. The *femoral* was secured once for a compound fracture of the thigh, which was subsequently successfully amputated; once for hemorrhage from a stump, with success; the *femoral and external iliac*, successively, once for a compound fracture of the thigh, with hemorrhage from the stump after amputation, unsuccessfully. The *external iliac* once, for inguinal aneurism, with success. The *subclavian* once, without the scaleni muscles, for aneurism, successfully; and once within the scaleni, for subclavian aneurism, unsuccessfully from secondary hemorrhage on the fourteenth day.

Twenty-five patients were operated on for *strangulated hernia*, of whom 13 died. Of the cases, 3 were of *femoral*, 18 of *inguinal*, 2 of *congenital*, the seat not being stated, and in 2 no mention is made of the variety of hernia. Of the 3 *femoral herniæ*, 1 was fatal from gangrene, the others recovered; of the 18 *inguinal*, 5 died of peritonitis, 1 of gangrene, and in 2 the cause of death is not announced; of the *congenital*, both died of peritonitis; the two undescribed cases were both fatal, one of them from gangrene.

Twelve operations were performed for the removal of *stone in the bladder*; of these, two were fatal, both of them from peritonitis; in one, the lateral operation was instituted, in the other the kind of operation is not stated; the *bi-lateral* procedure was had in 3 of the successful cases, the *lateral* in 3, *lithontripsy* was performed in 1, and in 3 the modus operandi is not described. The patients were of different ages, from 4 to 62 years.

We are compelled to pass over unnoticed the tables of operations practised upon the small arteries, those for stricture of the urethra, for diseases of the bones, for hemorrhoids, the dislocations of the hip-joint, the extirpations of testicles, and the operations on the joints.

The report from the hospital concludes with a table of 158 *cases of compound fractures of the thigh and leg*. This table we have not now leisure to analyze; but we doubt not that it is an important contribution, and that it will be made use of in future investigations.

Appended to the Report of the Committee is "a table of all the known operations of Ovariotomy from 1701 to 1851, comprising 222 cases, and giving a synoptical history of each case, by Washington L. Atlee, M. D." This is the largest number of cases of this formidable operation which has ever been published, and reflects credit upon the industry of Dr. Atlee. This statement merits a careful examination, with reference to the original sources of information quoted from. But this we shall be unable to do. We shall only attempt a revision of the table as presented to us, comparing it, when this is possible, with the recent very full statement by Dr. Lee, of this operation as performed

in Great Britain, in 162 cases, published in the *Medico-Chirurgical Transactions*, vol. 34, 1851.

It cannot be expected that Dr. Atlee's table shall be complete in all desirable points, because the original publications concerning many of them were, of course, deficient in completeness. Hence the report, for the purposes of study and as a groundwork for analytical reasoning, is defective in many of those particulars in which it were most desirable to have positive and numerous details. Thus, besides the 6 cases in which it is positively stated that there was no tumour present, there are many others, 72 in number, in which it is not mentioned whether there was any tumour or not; and in most of these, again, so far as the table goes, we are just as much at liberty to believe that there was none at all, as that any existed. We make these observations not to impugn the statements of the table, nor to question the accuracy of the inferences which Dr. Atlee draws from them, but simply as a criticism on the manner in which the table is drawn up. And in consequence of these imperfections we cannot review and verify many of the deductions ourselves, but must take for granted that the compiler's inferences are correct.

The whole number of cases recorded is 222, of which 76 died, and 146 recovered. The causes of death are stated with reference to 49 cases; they were, in general, inflammation of the peritoneum, intestines, veins, or of some other structure or organ; hemorrhage; shock of the operation, &c. Of the 222 cases, 52 were of the minor section, with 13 deaths; 153 of the major, with 58 deaths; 17 unknown, with 5 deaths. Of the total number 57 were not completed, with 12 deaths. The reasons why the operation was not completed in these cases were as follows: the existence of firm adhesions in 38; of tumour of the uterus in 2; of enlarged uterus in 3, in two of which Dr. Atlee was himself the operator; of enlarged uterus together with ovarian tumour in 1 (Dr. Atlee's case); in 1 the ovaries were unimplicated, but a fibrous tumour was connected by a narrow fold of peritoneum to the fundus of the uterus, which was itself atrophied; and in 12 no cause is assigned. In 6 cases no tumour was found; two of the patients died from the operation. Of the whole number of patients operated upon, 1 in every $2\frac{2}{3}\frac{5}{3}$ died.

The table of Dr. Lee, in the 34th vol. of the *Medico-Chirurgical Transactions*, embraces, as we have stated, the analysis of 162 cases of Ovariotomy performed in Great Britain. Many of the cases herein presented are not found in Dr. Atlee's report; and, on the other hand, some of those recorded by the latter are not included in Dr. Lee's paper. Of the 162 patients, 51 probably died from the operation; in 60, the ovarian disease could not be removed:—19 of these operations proved fatal. Of the remaining 102 cases, in which the operation was completed, 42 terminated fatally. Dr. Lee says that, from an analysis of 108 cases which are fully detailed, "in about one-third of the number, before an opening had been made into the sac of the peritoneum, it was impossible to determine whether any ovarian disease actually existed; or whether, when ovarian cysts and tumours were present, it was possible to extirpate them by a surgical operation." (p. 13.)

We regret that our time will not permit us to make a more critical examination of these two important papers in connection with each other, and with reference to the original sources whence the cases which they embody are drawn. The difficulties attending the diagnosis seem to be insuperable; and the obstacles to the removal of the ovarian disease, when such actually exists, are evidently insurmountable, in very many cases. It is certainly a matter of great surprise that so many survive the operation. And this fact—that so many do recover—is urged by those who recommend and perform the operation, as placing it upon a par with the ligature of large arteries, amputation,

&c. But the cases are by no means parallel; for the latter operations are done, usually, to save life, in circumstances when this is in more or less imminent danger, while in favour of Ovariotomy no such plea can be advanced.

We are not aware that sufficient attention has been devoted to the natural result of ovarian disease, to permit an assertion as to its comparative fatality, when contrasted with that of ovariotomy. Certainly, many cases are recorded in which a spontaneous cure took place. And, be it remembered, that in many of the operations published, though death did not immediately or speedily follow, yet this event did take place at no very remote period, and as a result of the operation, or of the disease for which this was executed.

We here take our leave of the Report of the Committee on Surgery. The papers appended to it, from Dr. Buck, Dr. Lente, and Dr. Atlee, are, as we have already observed, valuable contributions to Surgery. But, apart from these, we do not think that the Report is calculated to convey a correct impression of the existing condition of American Surgery, or of its progress during the past twelve months. However, we by no means wish to censure for this the members of the Committee; on the contrary, we would rather regret that their labours have not been more commonly shared and lightened by the practitioners of our broad country, who, had they taken the trouble to contribute the important results of their experience, would have enabled the Committee to embody a vast amount of valuable information, at once more instructive to individuals and more creditable to the National Medical Association. F. W. S.

The *Report of the Committee on Obstetrics* is from the pen of Dr. D. Humphreys Storer, of Boston. It presents an excellent and very judicious notice of the several contributions made by the physicians of the United States to this department of medicine during the period over which the report extends. In many instances the name of the contribution, that of its author, and the journal in which it is contained, is alone given; in general, however, a short but well digested synopsis of the more interesting facts, embraced in the obstetrical communications of the period referred to, is presented.

The summary of the reporter in reference to the present state of opinion and experience in relation to the abortive powers of ergot is interesting, and should have all its influence upon the minds of practitioners. We confess that so far as our own observations extend, and accident has made us personally familiar with several instances in which the ergot was resorted to, and taken in large and repeated doses, for inducing abortion, but without the slightest effect, we are inclined to the opinion of the French commission, that the ergot has not "the power of influencing uterine contractions before the full period, unless they have been previously excited by some other means." In the cases to which we have reference, as falling under our own notice, there could be no reasonable doubt as to the activity of some portions, at least, of the ergot employed; it having been procured at different periods, at different shops, and at various intervals.

The summary of American experience in reference to the subject of premature delivery, and the best means of effecting it, is both interesting and important. We are persuaded that, in all cases in which the pelvis of a female is so far contracted as to render delivery at the full period difficult or impossible, without the destruction of the child and danger to the life of the mother, it is our duty to recommend a recourse to measures calculated to effect a premature expulsion of the child. This, it has been clearly shown, may be done with little, if any, risk to the female; and in many cases, may be the means of saving also the life of the infant.

Some interesting cases of extra-uterine fœtation are given, as well as a series of observations, illustrative of some of the circumstances under which uterine hemorrhage may occur subsequent to delivery, and of its treatment. The following remarks of Dr. Storer fully accord with our own experience.

"In speaking of hemorrhage after the extraction of the placenta, Dr. Haxall refers to the various remedies usually prescribed in these cases, and says, 'Nor should the administration of ergot be omitted.' Speaking thus cursorily, as if he did not consider it of primary importance. In cases such as Dr. Haxall has described, we consider it imperative upon the practitioner to exhibit ergot the moment hemorrhage appears. In quite a number of instances which have fallen under our notice, the hemorrhage has diminished as soon as the specific effects of the remedy have been apparent. And, in two cases, occurring in the practice of the chairman of your committee, where, after previous labours, the hemorrhage had been profuse and alarming, by exhibiting the remedy just previous to the exit of the child's head, the anticipated hemorrhage was almost prevented."

Under the head of obstetrical instruments, a very fair notice is presented of the several improvements suggested by American physicians, within the period to which the report is limited.

Dr. Evans' "Obstetrical Extractor" is referred to, and seven additional cases are given in which its inventor has used the instrument; in these he remarks: "Its success has not only confirmed my confidence in the utility of the instrument; but also in its superiority over the forceps and all other means of applying extractive force in parturition that have heretofore been employed."

In reference to the Extractor, the reporter remarks as follows:—

"We confess that the only cases in which it seems to us that this instrument might be advantageously applied, are those in which labour has been prolonged from a *deficiency of uterine action;* but, even here, it presents less prospect of relief than the forceps, from the fact that much is often gained by the compression of the parietal bones, and their overlapping upon the application of the latter instrument, which would not be gained by the circular pressure produced by the extractor."

"Although," adds Dr. Storer, "every practitioner must acknowledge that cases do occasionally occur where manual assistance is imperatively demanded; yet we believe such cases are exceedingly rare. Most religiously do we coincide with the admonition of Churchill, 'That, *in no case is the forceps* (or indeed, any instrument) *to be applied, until we are perfectly satisfied that the obstacle cannot be overcome by the natural powers, with safety to the mother and child.*'

"Decided as have ever been our convictions upon the subject, they have gained additional strength by a perusal of the *Life, Writings, and Private Practice of the late Dr. Joseph Clark, of Dublin*, one of the most distinguished accoucheurs of the present age; who in a practice of forty-five years, attended *three thousand eight hundred and seventy-eight births*, in which the *forceps* were used but *once*, the *lever once*, and *craniotomy* was performed *twelve times*; and not a single death occurred from laborious or protracted labour."

Such statements cannot be too often repeated, or too widely spread among the profession. The temptation to bring a tedious labour to a close by manual interference, is too strong to be resisted by the young and inexperienced obstetrician, unless he is constantly forewarned of the danger and non-necessity of such interference, in any case in which nature is fully able to effect delivery without danger to the mother or child. The practice, which we have heard advocated by "persons of eminence in the profession," of resorting to instrumental delivery to save the mother a few hours of anxiety and suffering, cannot be too severely reprobated.

The report concludes with an account of operations suggested and per-

formed in cases of lacerated perineum, prolapsus uteri, chronic mammary tumour, fibrous tumour in the substance of the uterus; for the removal of diseased ovaries, and for the relief of occluded vagina; and cases in which the Cæsarean section has been practiced, during the year 1850, by American practitioners; and some contributions towards obstetrical statistics.

The report on *Medical Education*, from the pen of Dr. Worthington Hooker, of Connecticut, is marked by good sense and presents a candid, dispassionate examination of the defects and abuses in the existing modes of conducting medical education, and of the measures best adapted for their removal, and for elevating the attainments of the members of the profession within the United States to their proper standard. The necessity of due attention to the preliminary education of those destined to enter upon the study of medicine is insisted upon. The laxness of practice which prevails in regard to this subject, being very justly esteemed by the reporter as one of the greatest obstacles in the way of that reform, the promotion of which is one of the leading objects of the National Association. He urges, therefore, as of the utmost importance, that the action of the Association on this subject be fully sustained, and that its recommendations be carried into effect as rapidly as the various conditions of the different portions of our country will permit.

The reporter is a clear-headed, practical man, who comes to the task of investigating the defects and abuses of medical education in this country, unbiased by any particular party, and representing no other interest than that of his profession, and of the public at large; to the safety of which a body of talented and well instructed physicians materially contribute, not only by their services in the hour of sickness and of peril, but also by their careful investigation of the causes of disease, and the measures adapted for their prevention or removal; or, when this latter cannot be effected, by pointing out the means by which the influence of these morbific causes may be rendered less pernicious.

To effect the desired reform in medical education, much stress has been laid, by different minds, upon different measures which have been proposed, and the merits of each have been earnestly urged by its advocates. Dr. Hooker, however, remarks, that

"A candid view of the subject as a whole, we think, will show that there is no one measure, or set of measures, that can raise the standard of medical education, but that this must be done by an extensive and varied combination of measures."

While he admits that great changes are required, in order to remove all the existing defects and abuses, he insists that they must be, for the most part, gradually introduced.

"Any precipitate movements," he remarks, "will be disastrous. Let there be the utmost freedom of suggestion and discussion, to prepare the way for one change after another; but let no movement be made which cannot be sustained by the public sentiment of the profession. Dissatisfaction is sometimes expressed when there are no positive marks of advance in the action of this Association. But it should be remembered that there is a real advance continually resulting from the very agitation of the subjects which are discussed, and that any positive acts on our part are not so much causes, as they are evidences of such advance. The impatient reformer must wait a little, and he will see that the many minds which are thinking and speaking, not only here, but in the multitude of subordinate associations, and smaller accidental circles throughout our land, are not thinking and speaking in vain. The results in due time will appear."

The remarks of Dr. Hooker, on every point in relation to the subject of

medical education, and the measures necessary for its reform, are so very pertinent and practical, that were we to follow out our own inclinations, we should insert the whole report. We regret that the recommendation of the Association to the several State Medical Societies throughout the Union, to procure a republication of this report for general distribution among the profession, has not been more generally acted upon.

In regard to the manner in which most students of medicine are educated in this country, the reporter remarks as follows:—

"Eight months in the year they *read* medicine, as it is termed, in some physician's office, and the remaining four months they hear from four to seven lectures daily, at the same time attending upon the practice of an hospital, if there be one in connection with the school; and practising dissection, if they incline to do it. As most physicians are not accustomed to teach, a very large proportion of students simply read medicine under the direction of their preceptors, and so far from being the subjects of any rigid training in their studies, they are merely told what books to read; and their inquiries are answered whenever they chance to make any. And when they come to attend lectures, there is nothing like recitation, or, if there be an examination of the students on each previous lecture, so little time is given to the exercise that it is of little value. The student, then, neither while attending lectures, nor while in his preceptor's office, is encouraged in anything like faithful and rigid study. Besides, there is no proper gradation in the instruction which he receives. There is no due preparation in the study of one department for the study of another; but all is acquired in a very loose and confused manner. This state of things, it is true, is obviated, in a measure, by the private schools for teaching medicine, which are in operation in our cities. But comparatively few, however, avail themselves of the benefits of these schools, and most students are trained in the very lax mode in which we have indicated.

"In the study of every science, an active reception of knowledge should be encouraged in preference to a passive reception of it. But, in the study of medicine, as generally pursued, the latter is encouraged in preference to the former. The mode of study during eight months of the year, ordinarily invites to a listless and careless state of mind; and in the four remaining months, the student's mind is subjected to such a crowd and pressure of instruction that its powers are wearied out, and almost paralyzed. The memory is taxed to the utmost, and there is little time for the exercise of the reflecting and reasoning powers. Such a mass of ill digested knowledge, of course, in a short time produces satiety, and unfits the mind for anything like active exertion. Even if the student has, during the previous months spent in his preceptor's office, pursued his studies vigorously and systematically, his habits are entirely broken up by this passive and confused reception of such amounts of instruction; and, as he has little time to engage in that critical examination of subjects to which he has accustomed himself, soon looses the habit of doing so, and looses with it some of that mental vigour which can be preserved and increased only by active exercise.

"Great importance is commonly attached to the amount of knowledge communicated in lectures; and much has been said of the necessity of going over the whole ground in each branch of the science. In the opinion of the Committee, the usefulness of lectures depends not so much upon the quantity of instruction given, as it does upon the habit of mind which the lecturer imparts to his auditors. If he infuses into their minds a spirit of critical investigation and accurate observation, even though he leave much of his range of subjects untouched, he will do more towards making them successful, both in studying the science, and in practising the art of medicine, than he would if he should make them the passive recipients of all the knowledge which his branch includes.

"Applying the principles which we have indicated to the question in regard to the length of the lecture term, which has been so often, and so fully discussed, your Committee would say, that if in lengthening the term from four to six

months, it is intended that an addition be made to the amount of instruction, corresponding with the addition of time, the change will do harm. Four months is a period quite long enough for the student's mind to be made the passive recipient of such an abundance of knowledge. But, on the other hand, if no addition to the amount of instruction be contemplated, and the added time is to be employed in an active exercise of the mind of the student by examination on what he hears, then the change is a very valuable one. It will do much towards correcting the loose habits of thought and study which the present mode of instruction in this country has so strong a tendency to induce in the mind of the medical student.

"Lecturing and teaching should, to a great extent, be combined. Every lecture should be made the subject of strict examination at each succeeding lecture, and the whole class should be required to submit to this examination. We need not enlarge upon the benefits which would result from such a course. Suffice it to say, that it is absolutely necessary in order to insure, in the case of most students, that active reception of knowledge which alone can make it practically their own. And even in the case of those who are disposed to be diligent, the advantages of such a course would be very great."

There is much truth in the foregoing remarks. The leading defects in the plan of medical education in this country are distinctly indicated, and some of the means by which they are to be remedied pointed out. A sufficient preliminary education in the student; careful, methodical, and thorough instruction in the fundamental branches of medical science in the office of the private preceptor; the progress of the student and his correct appreciation of what he has acquired being tested by frequent examinations; the same course being pursued by the teachers in our medical schools. These measures, with a full and prolonged series of clinical instruction, which may be commenced by the private preceptor, and completed in the wards of the hospital, either during or subsequent to the pupil's attendance upon lectures, would go far towards increasing the competency of the physician at his entrance upon the active duties of his profession, and facilitate his further improvement in the theory and practice of the healing art, as well from the study of books as from the investigation of disease, its nature, phenomena, progress, termination, and treatment at the bedside of the sick. The education of no physician can be considered as completed in the schools, however judicious may be the course of instruction adopted; however competent the teachers by whom that course is carried out, and however assiduous and protracted has been his attendance upon it. Upon the reception of his diploma he has but commenced his life of study. He has mastered, it is true, the elementary branches of medicine; he has acquired the leading facts and doctrines and the therapeutic directions sanctioned by observation and experience; but it is only after he has entered upon the practice of medicine, that he can acquire facility in the application of these to the diagnosis of disease; and to its mitigation or cure. The proper plan for the study of disease, and of the means by which it is to be arrested, may be taught by preceptors and lecturers, but the *actual* study of the morbid states of the human system, and the most certain and prompt means for their removal must be pursued in the chamber of disease by the practitioner of medicine, aided by a careful consultation of those lights which "the masters of our art" have communicated for his instruction and guidance.

We admit the general correctness of that portion of the report in which the little esteem often accorded to talent and skill in a physician by the public at large, is referred to. It is but too true that "a practitioner of superficial talents and small acquirements often succeeds better, even among the intelligent and learned, in the acquisition of business, than one who is endowed with high talents, and is possessed of extensive and hard-earned acquirements." It is

often even worse than this. "To say nothing of the success of the undisguised quack, the accomplished and high-minded physician, devoted with his whole soul to the interests of science and humanity, while he struggles with care and debt, is obliged often to look out from the loop-hole of his retreat upon some plausible pretender, perhaps a renegade from our own ranks, surrounded with wealth, and the favourite not only of fashion, but often of intelligence also."

The baneful influence of such a state of things upon the character and attainments of our profession is forcibly depicted by the reporter. It deters young men of talents and education from entering our profession; restrains the zeal of those who would devote themselves to the enlargement and perfecting of the different branches of medical science, and induces too often the needy and timid members of the profession to assume the arts and habits of the charlatan in order to obtain a portion of public esteem and patronage. It exerts a sinister influence "upon the whole profession; upon the practitioner, upon the student, upon the schools; and even the professors are not upon an elevation so high that it cannot reach them. The general standard of education and attainment has received its character and complexion, to a very great extent, from this influence."

The chief means of removing the abuses which at present depress the standing of the medical profession and cripple its usefulness, is considered by the reporter, to be *the influence that can be exerted through the organizations of the profession*. We entirely concur in the correctness of all he says in regard to this subject, and shall close our notice of the report on Medical Education, with a somewhat long extract from this portion of it.

"This influence (that of organization) is of a compound character; social, moral, and scientific. And these three classes of interests in which this influence is seen are by no means independent of each other; but the social privileges, and the professional virtues of medical men have an important bearing upon their scientific attainments and character.

"These organizations are as yet very imperfect, and are, therefore, comparatively inefficient. We do not know yet how much good they can be made to accomplish. Many express themselves skeptically in relation to their usefulness, and are reluctant to meet even the small expense which is needed to sustain them. But the amount of good which results from them, even in their present imperfect state, is very great, and can only be estimated by comparison with those communities where no such organizations exist. And when they shall be perfected, the extent and value of their influence will be incalculable.

"The voluntary principle imparts great power to associated action. These organizations are, therefore, to do a peculiarly important work for the profession in this country. But in order to do this they need to be systematized, and the members of the profession must be brought more generally and thoroughly under their influence. At present the great mass of the profession have little else than a nominal connection with these associations. All the efficiency which they have depends upon the action of a few individuals, who are willing to sacrifice time and labour for the general welfare, in face of obstacles, and that worst of all discouragements, the chilly influence of prevailing indifference. And their efforts are too much confined to the larger associations. There are comparatively too few town associations, although, with small libraries and the periodicals, and occasional meetings at once of a social, festive, and scientific character, such associations would do vast good, not only within their limited circles of influence, but to the whole body of the profession. They would give life and efficiency to the larger associations; and not only so, but in giving they would also receive.

"Cities are great centres of influence in medicine, as well as in every other department of knowledge and effort. Weighty responsibilities, therefore, rest upon medical men in our cities. With them associated action, so powerful for

good or for evil, should be made as general and perfect as possible. It should not be left to small voluntary associations. These do good; but the good which they do is limited, and it is marred by abuses which are inevitable accompaniments of such narrow action. Cliquism is apt to creep in, and it sometimes exerts so deleterious an influence that many condemn such associations altogether upon this ground. But even cliques are better than an utter absence of association. They do more good than harm; and the harm which they do is, generally, in a great measure, neutralized by the influence of counter-cliques. If a general and thorough system of associations were in full operation, the strictly voluntary associations or clubs, would be more purely subservient to the common interests of the profession than they now are, because their liability to abuse would be very much abated.

"In every large city there should be one general association, with subordinate ones in the different districts into which the city should be divided, bearing such relation to the general association as County societies bear to State societies. These associations should be so regulated, and such efficiency should be given to them, that it would be for the interest of every physician to be a faithful member, if he wished to maintain a respectable standing with the profession and with the community. And if this were the case, men whose success results from dishonourable and quackish arts could not continue as they now often do, as a measure of policy, a merely nominal connection with the associations of the profession, but they would be obliged to take their proper place in the ranks of undisguised quackery.

"Association is the great means of creating and bringing into action a sound public sentiment among medical men. It, therefore, gives power to professional influences, and neutralizes those popular influences which tend to corrupt the honour of the physician, and to depress his standard of professional attainment. Knowing this, the practitioner, whose chief object is to obtain a merely popular reputation, as the means of pecuniary advancement, withdraws himself from the broad basis of association with the profession. If he does not stand wholly aloof, his connection with our organizations, which is, at the best, but a loose one, is regulated entirely by the principles of cliquism, or is, perhaps, a mere feint to enable him to practice the more secretly, and, therefore, the more effectually, the arts and tricks of the charlatan.

"The social influences of association are not among its smallest benefits. Individualism is almost an essential element of the jealousies, and quarrels, and bickerings, which have so often brought contempt upon our profession. And, on the other hand, these have no better cure, or rather preventive, than is to be found in what may be termed scientific socialism. If physicians meet together for mutual improvement, even though the discussions be somewhat warm, and the war of opinions be vigorous and obstinate, a friendly feeling will bear rule, especially if the festive board be spread; and an influence will be left which cannot be destroyed when each returns again to his own individual sphere of action. This continued influence of frequently recurring seasons of mutual improvement and enjoyment fortifies against the temptations to a dishonourable competition, which an uninterrupted individualism is so apt to engender among medical men.

"It is by no means a small consideration, in estimating the value of association, that it wins for the profession the esteem and confidence of the public. The union of men for scientific purposes always does this. And there is nothing which has done so much to weaken the confidence of the community in the medical profession as the jealousies and dissensions which have grown out of a selfish and narrow individualism.

"Such being the advantages of association in our profession, it is the duty of every physician to do all that he can to give to our organizations character and efficiency. If all who desire that the standard of medical character and attainment be raised would turn their influence into this channel, a great change would at once be effected in the condition of the profession in this country. The demi-quacks, who so much disgrace our profession in the eyes of the public, would be driven from our ranks. Public sentiment, both among medical men and in the community at large, would be renovated; and consequently the value

of professional reputation would rise, while that of a merely popular one would fall, even as a source of emolument. A reform in our systems of education would be vigorously prosecuted, and our schools would cease to send forth such numbers, as some of them now do, of unqualified physicians, to give currency to error and delusion in medicine, to destroy health and life, and to bring contempt upon our noble science. The medical literature of our country would be transformed by the change. It would be purified in correspondence with the improvement in the education of the profession, and it would be enriched by the vast resources of knowledge and experience, which would be gathered in by the multitudes of associations all over the Union."

As an appendix to this report is given a communication from Dr. Bowditch, containing the reply of Professor Horsford, to the inquiries of the former in relation to instruction in practical chemistry. The best plan for teaching chemistry is a subject to which too little attention has been heretofore paid; we trust that it will come again before the Association, in order that a full investigation shall be instituted into such improvements as may be introduced into this branch of medical instruction, with the view of facilitating the student in acquiring a knowledge as well of its principles as of its practical details and operations.

The Report of the Committee on Medical Education in relation to what has been termed "*Demonstrative Midwifery*," has especial reference to the course pursued by the Professor of Obstetrics in the Buffalo Medical College, which had become the subject of a legal investigation—the consideration of the value and propriety of this course having been referred to this committee, by a special resolution of the Association passed at its preceding session.

After briefly stating the facts of the case, and stating the advantages urged in favour of an exposure, before the eyes of the pupil of midwifery, of the conclusion of the process of labour, the reporter remarks:—

"Granting all that can be claimed with any plausibility for the advantages mentioned, they are not of sufficient value to make it proper that woman in the hour of her extremity should be made the subject of a public exhibition.

"But we not only object to the mode of instruction, adopted in the plan at Buffalo, as unnecessary, but we object to it, also, as being utterly *incompetent to give the student that knowledge which he needs in the practice of obstetrics.* It cannot take the place at all of what may properly be termed Clinical Instruction in Midwifery. A single hasty examination by the touch in the course of the labour, and a view of the conclusion of the process, can supply the student with but a very small part of that practical knowledge which he needs when he comes to take charge of patients upon his own responsibility alone. This knowledge he can obtain effectually only by taking the care of cases of midwifery during his pupilage under the supervision of his preceptor. A single case thus managed, will teach him more than a multitude of such exposures as that which was made in the Buffalo Medical College possibly could do."

Besides this general, and, we believe, correct conclusion, the report contains a few brief but very pertinent remarks on the general principles involved in the general subject. They deserve the candid consideration of every physician The opinions expressed in the report in reference to demonstrative midwifery received the unanimous approbation of the Association, as expressed by a resolution to that effect, offered by Dr. Dickson of S. C., and adopted without a dissenting vote.

The Report of the *Committee on Medical Literature* is understood to be from the pen of Dr. Thomas Reyburn, of Missouri. In the introductory remarks he states that, in entering upon a review of the character of the periodical medical literature of the period over which the report extends, it is with

views somewhat different, perhaps, from the opinions entertained by those who have preceded him. He has not felt himself called upon to criticize rigidly the papers in this department, as mere literary productions.

"We have deemed it unnecessary to bring to the test of grammatical rule, or to judge by the nicest standard of the rhetorician, the various productions submitted to our notice. We have been induced to regard these as in some measure minor points of consideration, from having borne in mind the fact that science is truth, and that in no department of investigation is the early period of its progress so independent of the refinements of scholarship as that of medicine. A novel inference, an important deduction, carries with it its full weight, no matter how homely the garb in which it may be clothed. A new light thrown upon disease, a valuable remedy suggested, is easily grasped at, no matter how unstudied the recommendation, or provincial the style in which it may be urged. Names familiar to our ears, as beacon lights in science, have waxed bright without the lustre borrowed from mere literary culture, and although we may not say how much more they might have accomplished with enlarged educational advantages, we prize too highly the imperishable legacies they have left to our profession, to run the risk of deterring from like efforts any one of those who might be induced to make them, and such we consider might be the effect of injudicious or ill-timed criticism upon mere style and manner of writing, where zeal and honesty of purpose are apparent in the contribution. The productions of men of acknowledged talent, who to the examination of scientific truths have brought but a modicum of scholarship, yet with strong native genius seizing upon the investigations and suggestions of others as guides to further developments, have given to their fellow-labourers the fruits of their toilsome research, regardless of the smooth sentence, the rounded period, and the finished style, have taught us to bend in grateful acknowledgment before the efforts of their vigorous minds, and have deterred us from criticizing what we may not aspire to equal."

We know not whether we clearly understand the precise views that are intended to be inculcated in the foregoing, and other kindred remarks, presented in the very commencement of the Report on Medical Literature. If nothing more be meant than that it is unjust to reject or undervalue important facts in either of the branches of medical science, because they are communicated in a plain, defective, or inelegant style, or to censure the contributor of novel and important facts, because he has neglected to express them in polished and unexceptionable language, we admit the correctness of the author's views. We are unaware, however, of any medical reviewer of character and authority, who has been guilty of refusing the praise due to valuable contributions to our science, even when clothed in the most homely language. The fact is, we fear, that the fault of our reviewers has rather been of an opposite kind; they have, too generally, not only passed by in silence errors of style of every kind, but have often even praised where censure was richly deserved.

But while we admit that the value of the matter communicated is of far more importance than "mere elegance of style," we nevertheless insist that the style is a legitimate subject of criticism, even in professional works and papers. In communications of a scientific or practical character, nothing further is required in respect to language than lucidness, accuracy, and as much terseness as is consistent with perfect clearness; every attempt at ornament or rhetorical flourish is not only uncalled for but ridiculous. An active and vigorous mind, habituated to close and accurate observation (and from no other can we expect valuable contributions), very soon acquires a facility in expressing itself with clearness and accuracy; gross errors in style will, in fact, very generally be found to occur in communications of little merit. Occasionally a quaint, affected, or highly ornate style is made choice of by medical men of

unquestionable talents but of vitiated taste; while others strive after an appearance of originality and profundity, by interlarding their communications with imitations of foreign idioms, and the choice of foreign words where the idea intended to be communicated could be expressed with much greater clearness and precision by English terms in common use. To put a stop to such perversions of style, is the legitimate province of the critic. Equally is it his duty to notice obscurity and vulgarity of language, and a constant violation of the established rules of grammar and of composition. A proper preparatory education should be insisted upon in every one who would enter upon the study of medicine. It is a vulgar error that native talents cannot be benefited by such an education; that truth is generally communicated in more original and vigorous language, by those who have been deprived of, than by such as have enjoyed the advantages of a proper literary training. Many of the standard works of our older, as well as our contemporary physicians, works which have had a powerful influence in enlarging the boundaries of medical knowledge, and which will long be received as authoritative on the particular subject or department of which they treat, are written in a pure, correct and even elegant style. Professional talents and attainments may unquestionably be possessed by those who have had no opportunities of acquiring a knowledge of and facility in composition, but when they desire to communicate the result of their professional observations and studies to their brethren, their want of facility in the use of written language will become apparent, and, often, by obscuring, will impair the value and the influence of the important truths they announce.

After presenting a general view of the more important papers embraced in the Medical Journals of the United States, for the year 1850, the reporter closes this branch of his subject with some remarks on the characteristics of our professional periodical literature.

He alludes to the small amount of original matter in general contributed by the editors of journals themselves; much less, certainly, than is usually contributed by foreign editors to the columns of their journals. But not only are the American editors censurable, in the opinion of the reporter, for the rarity of their own original efforts, but also, "in neglecting to correct the contributions of others," which they accept for insertion. He would have the editor improve the rhetorical finish of the papers of his contributors, and divest them of their incorrectness and inappropriateness of language. In other words, if we understand him correctly, reclothe the correspondent's thoughts "in words more fitly chosen and more appropriately placed." Revising the papers he may receive, which, while they are "most creditable to the intellectual capacities of the writer," yet "lose half their interest by being placed before the reader in their rough habiliments of weeds, not flowers of speech, when a more becoming vesture might readily have been furnished by erasures, additions, condensations, or other corrections in the Editor's closet."

We doubt whether the reporter was ever engaged in the editorship of a medical journal; if he were, and really did set out to perform, for his contributors, the task of correcting and re-writing their communications when these were deficient in style and condensation, he must have found little time to furnish for its pages any considerable amount of original matter from his own pen. Some few of those who were willing to assist in filling up his pages he may have gratified, by clothing their thoughts in fitting language, but he had to deal with a very tractable class of contributors if the majority did not protest against their communications being divested of their own humble, awkward, and ill-fitting vesture, and decked anew, even by an Editor, in a better and more becoming style.

We believe it to be the duty of the editor of a medical journal to correct, in the articles adopted by him for insertion, all glaring grammatical errors; to suggest to the writer better forms of expression, the omission of an objectionable sentence, and the curtailment of all redundancies, or even, in some instances, to take upon himself the responsibility of such emendations. But it could hardly be expected of him to undertake, even with the consent of his contributors, excepting in a few very particular cases, to re-write for them their papers, however valuable may be the matter they embrace, and however incorrect the style in which they are composed. No contributor, even though his contributions be gratuitously offered, has a right to expect this; and no editor would be able to satisfy all for whom he performed this labour even in the most skilful manner.

We agree fully with the reporter in his remarks upon the importance in scientific papers, of "language sufficiently accurate and intelligent to enlist attention and to inspire confidence in the statements advanced." We equally regret with him "the common-place, inaccurate, in short, *illiterate* language, so often suffered to find its way into journals." It is unquestionably true, as he remarks, that "accuracy of expression is, of all things, important in medical writing; and if we would seek to elevate the character of our periodical literature we must, even in the least important contributions, avoid a degraded character of language." Now we would inquire, in view of the importance of this accuracy and correctness of style, whether it is not the duty of the critic to point out all striking violations of it.

In the general remarks upon a national medical literature with which the report closes, the declaration made near its commencement is reiterated: namely, that the absence of rhetorical elegance, the infringement of rules for correct style, and even the occasional evidence of want of acquaintance with English grammar, in medical communications, "are amply compensated for if these communications enunciate discoveries that give added light, though but a feeble ray, or experience that will direct, although but a few steps, in advance of the present," in aught that relates to the healing art.

Although the reporter asserts that he would not wish to be misunderstood as undervaluing the advantages of literary education in the physician, still we fear that many who read his report will draw the conclusion that, in the opinion of the writer of it, "sound natural judgment, untiring conscientious industry, and extended experience," will enable their possessor to do very well without any literary education whatever.

It is unquestionable that the most protracted and ample course of instruction in grammar, rhetoric, and belles lettres—what may emphatically be denominated a liberal and classical education—will not confer intellectual powers upon him to whom nature has denied the requisite mental endowments. They are, still, all important, whatever may be the extent of native talents possessed by the individual, by strengthening his intellect, maturing his judgment, and increasing his facilities for the acquisition and the communication of knowledge.

Many, by their own unaided power of intellect, have risen to eminence as physicians, and as correct and even polished writers, without the advantages of literary education in their younger days. But how has this success been achieved? Not by intuition, but by a laborious course of self-instruction. Now, we insist, that even in these instances, a literary education, acquired before entering upon the study of medicine would have been of advantage by permitting the time occupied in self-instruction, always pursued under more or less disadvantages, to have been devoted to the pursuit of strictly professional knowledge.

Much of the reporter's arguments, to prove that the profession of medicine in the United States has not suffered from the want of a national medical literature, are based upon the supposition that they who contend for its promotion and encouragement believe it to be essential to professional talents and skill. Such, however is not the case. We know that the regular practitioners of this country, taken as a body, will bear a very favourable comparison, as practitioners, with those of any other country. But we wish to elevate them above the class of mere skilful practitioners. We desire that they should repay the debt which they owe to Europe, for the instruction they have derived from its medical literature; that they should not confine to the circle of their own patients the knowledge they have derived from experience and observation, but that they should become co-workers with the "master spirits" of our profession in other lands, by embodying the results of that experience and observation in a form accessible to the whole profession, and thus contributing towards the general stock of medical knowledge.

Not merely to practice well his profession, within the comparatively limited sphere to which each physician is necessarily restricted, should be the ambition of the enlightened and benevolent members of our profession; it should be their aim, also, as far as in their power lies, to extend the boundaries of the healing art, to increase its certainty, and diminish the number of those diseases the fatal course of which it is as yet powerless to arrest. The medical journals afford certainly one, and a very important means of communication between the members of our profession. But still their influence and circulation are restricted. The entire profession can be reached only when the information and instruction we have to communicate are embodied in a regular treatise or monograph. It is in such a form alone that the medical productions of any country will be received in the light of a national medical literature.

The reporter believes that the encouragement of an American Medical Literature is a matter of very little importance, from the fact, that "the scientific works of Europe are upon our tables here, in an incredibly short time after their appearance there"—that a foreign work imparts the same degree of knowledge in America as if written by a native of our own country—and that a discovery in science sheds the same light upon all parts of the globe where it can be understood and appreciated, as upon the spot whence it emanated. In other words, that for the onward progress of our science, it is useless for the profession in this country to labor, when its members can, with such facility, avail themselves of the labours of every industrious and talented physician of Europe. But are we to depend also upon the Medical Literature of Europe for accurate delineations of the medical topography of the different sections of our own country compared with their endemic diseases; for the description, pathological anatomy, and treatment of the maladies of our own country, and for the embodying, in a form adapted for general information, of that store of therapeutical experience which the American physician has acquired in the wide field for professional observation in which he is placed? A National Medical Literature can by no means be dispensed with. To fulfil the duties they owe to the profession at large, the physicians of this country, while they profit by whatever instruction they can receive from Europe, are bound to communicate, in return, the results of their own labours for the augmentation and perfection of the several departments of the healing art.

The report from the *Committee on Hygiene* is confined to a consideration of "the best methods of warming and ventilating public and private build-

ings;" upon which most important topics the observations and details are of a highly interesting character; the more so as the plans for warming and ventilation referred to by the committee are altogether practical.

The main points dwelt upon in the report are: The fearful effects of breathing air contaminated by the breath and other emanations from bodies in health and sickness. The necessity of a free supply of pure air for the promotion of physical vigour and health, and the disarming of infection.

Ventilation is viewed as consisting of two processes:—

"1. The means of effecting the removal of impure air from buildings; and,

"2. Those adopted to supply fresh air for the inmates.

"When the means proper to secure ventilation are united with those for warming buildings, the joint system has been very appropriately termed thermo-ventilation, the advantages and most improved plans for accomplishing which are described."

There is much truth in the following remarks, of which the public generally are profoundly ignorant—an ignorance which has been an unsuspected source of suffering and disease:—

"At the present day, by far the most common means of imparting heat to apartments is by means of open fire-places and ample chimneys, required for the escape of the smoke and gases produced from the wood fires. The drafts of air produced through such chimneys not only secure a free ventilation but often cause such a rapid flowing in of the external cool air in currents as to lead to inflammatory attacks, which tend greatly to neutralize the advantages derived from a free circulation of pure air. Next comes the use of close iron stoves, and the open grate for burning coal. Both of these, but more especially the hot stoves, deteriorate the air of apartments very much, so that when breathed it produces most unpleasant feelings, such as stupor, headache, and general oppression. These evils are considerably diminished by the substitution of brick and porcelain stoves, such as are commonly used in Russia and Germany, and other parts of Northern Europe; those seldom becoming so hot as to decompose the dust of the air, and thus cause deterioration.

"What are commonly called *air-tight* stoves may be economical contrivances, where the consumption and cost of fuel are the only considerations; but in the long run, especially when used in close apartments, or where many persons are present, they cannot fail to be most wasteful of that which is of far more account than money, namely, health. A great deal of inventive talent has been brought into requisition for the purpose of devising the best means of warming buildings. But it must be confessed that, in most instances, economy of fuel has been a greater desideratum with the inventors than any hygienic considerations."

In reference to the suggestion from the Smithsonian Institute, on the collection of statistics calculated to afford information relative to the prevailing diseases of different parts of our country, referred to the Committee on Hygiene, a plan is presented which the committee believe will most effectually obtain complete returns from all sections of the Union, and suggestions made as to the most practically useful mode of arranging and tabulating the returns when received.

They recommend that the blank forms furnished by the Institute should be distributed by the State Medical Societies to their members, with an earnest request that they should make faithful returns of all deaths occurring in their practice. That the returns received by the State Societies should be tabulated and arranged upon a general and uniform plan by each society, and the returns and tables prepared from them sent to the Smithsonian Institution, where their compilation and arrangement into a more comprehensive form could be effected by a committee of that body.

Excellent suggestions are also made as to the particulars necessary to be embraced in the returns in regard to each case of death, and a form given for their tabulation.

The report closes with some very proper comments on the injurious consequences resulting from the use of quack medicines, and on the reprehensible practice pursued by many members of the clerical profession, in giving their influence and encouragement to imposture and deceit by recommendations of the vilest nostrums, sometimes without any other consideration than to further the pecuniary interests of one in whom they have an interest; occasionally, from a mistaken belief in their efficacy in the cases in which they are recommended, and sometimes, we fear, from direct opposition to the regular medical profession. These comments are the result of two resolutions bearing upon this subject, which were referred to the committee at the last session of the Association.

This very excellent report, drawn up by Dr. P. C. Gaillard, of Charleston, S. C., closes the series presented to the Association, and by them directed to be published in the transactions of their fourth session.

The *Prize Essay*, on the *Corpus Luteum of Menstruation and Pregnancy*, by Dr. Jno. C. Dalton, completes the present volume.

This is a most interesting and valuable contribution to the physiology of the reproductive organs of the female, confirming, by a series of careful observations on the condition of the ovaries subsequent to menstruation and pregnancy, in the human subject and in the cow, the opinions of previous observers on certain points, and throwing entirely new light upon others.

The essay is one highly creditable to its author, and confers honour upon the Association under whose auspices it has been brought out.

An idea of the general bearing of the observations of Dr. Dalton, will be derived from the following extract from the introduction to his essay.

After quoting from M. Pouchet his remark, that—

"Since the fact of spontaneous ovulation has been demonstrated, it must be now superfluous to point out the futility of the distinction between true and false corpora lutea; they are all produced by the same processes; they have all discharged ova before presenting themselves under the aspect which they assume after that occurrence; and whether the ovule which they have expelled does or does not become fecundated, whether or not it undergoes the transformation into an embryo, all have, nevertheless, the same form and the same structure"—

Dr. Dalton states, that—

"*It is the object of the present paper to show that this conclusion of M. Pouchet is entirely erroneous; that the corpus luteum of pregnancy is different from the corpus luteum of menstruation; and that it may, under ordinary circumstances, be readily recognized and distinguished from it.*

"In the following pages, however, I shall regard the five principal propositions of M. Pouchet as definitely established by the observations and arguments contained in his treatise; for, probably, nothing which could be here brought forward would add any very material weight to the evidences there presented.

"Nevertheless the reader will undoubtedly discover, among the following observations, many collateral proofs of the theory of spontaneous ovulation, to which it will not be necessary to direct his attention particularly.

"It will readily be comprehended that the difference hereafter to be established between the corpus luteum of menstruation and that of pregnancy is not an essential or fundamental difference. Since the regular and periodical rupture of the Graafian vesicle and discharge of ova, at the time of menstruation, are here recognized, as well as the fact that corpora lutea are always formed in

the ovaries as a consequence of such rupture and discharge, the differences alluded to must necessarily be owing only to variations in the subsequent changes in the ruptured vesicle, the most important parts in either case still remaining and preserving their original relations. The principal fact, therefore, to be established in the present memoir may perhaps be more accurately stated as follows:—*That the presence of a fœtus in the uterus induces certain modifications in the growth and progress of the corpus luteum, by which, during a certain period, we can be enabled to decide with certainty that pregnancy has existed;* and that these modifications follow a regular course of progression and retrogression, by which we can estimate, in a proximate manner, the period to which pregnancy had advanced at the time of death.

"The importance of this subject, particularly in a medico-legal point of view, is too evident to require notice."

The essay of Dr. Dalton is illustrated by some twenty-six wood-cuts, and four coloured lithographs, executed in a style highly creditable to the state of the art in this country. D. F. C.